

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
Чебоксары (8352)28-53-07
Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
Ярославль (4852)69-52-93

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Технические характеристики на первичные ИГХ-антитела, вспомогательные реагенты, контрольные предметные стекла, консерванты КОМПАНИИ **Sigma-Aldrich**

Виды товаров: эталонные стандарты, наборы разновидностей, антитела, слайды, системы обнаружения и вспомогательные реагенты, решения для предварительной обработки тканей, декальцинаторы для обработки тканей, разбавители антител для иммуногистохимии, полимерные системы, таблетки dab-буфера, промывочные буферы, универсальные сыворотки отрицательного контроля и др.

Cell Marque™ Control Slides



CELL MARQUE™ IHC CONTROL SLIDES

Our IHC positive control slides are developed by in-house technicians to complement our antibody offering and ensure the consistency and reliability needed to support histopathology work.

Our positive control slides are made for testing the specificity and avidity of the antibody in immunohistochemical (IHC) staining. We offer the controls as paraffin embedded tissue sections with known antigen presence, mounted on microscope slides and designed to monitor staining in clinical laboratories.

HISTOCYTE LABORATORIES CELL LINE CONTROL SLIDES

We offer a comprehensive range of HistoCyte Laboratories histopathology cell line control slides and blocks, made from cultured human cell lines to provide the required range of expression of a specific biomarker. These cell lines are compact and typically "tissue-like." They are processed using proprietary methods that allow the creation of high-density embedded cell blocks with cores that retain their cellular morphology. Our HistoCyte control cell lines are compact and available as pre-cut unstained slides or cell microarray blocks for sectioning.

HistoCyte Laboratories control slides are ideal for use as a same slide control for immunohistochemistry (IHC) and *in situ* hybridization (ISH). We provide standardized and developed control slides for consistent results throughout the block. Control histology slides with two cell line cores offer positive and negative expressions. Analyte controls are placed at one end of slide, allowing sample application on the same slide for valid comparison. There is also a supply of more comprehensive products with as many as five cell lines, providing a range of expression and sensitivity: The Dynamic Range^{DR}

TISSUE-TROL™ CONTROL SLIDES

Histology control slides are essential in providing support to formal quality assurance programs. Our TISSUE-TROL™ slides contain paraffin embedded tissue sections of known characteristics, used for monitoring staining performance in pathology laboratories. Our control slide package contains 25 slides, with one slide stained with the appropriate procedure to demonstrate the expected result.

Cell Marque™ Detection Systems & Ancillary Reagents



From tissue pretreatments to antibody diluents, blocking serum, and HRP polymers, Cell Marque™ ancillary reagents provide the most reliable and consistent performance needed by today's demanding, high-throughput histopathology labs.

Our well-known brands comprise reagents created and tested for standard clinical immunohistochemistry and histological staining methods by our in-house, certified histopathologists.

TRIOLOGY™ TISSUE PRETREATMENT SOLUTIONS

TrilogY™ is the ultimate pretreatment solution for your lab. Unlike other EDTA solutions, TrilogY™ is a near-neutral pH solution, making it less harmful on tissue, while still exhibiting the strong unmasking abilities of a conventional EDTA solution. Its revolutionary formula combines deparaffinization, rehydration, and unmasking, all in one simple step! TrilogY™ allows for standardization of the pretreatment procedure, which in turn leads to more consistent and reliable results.

DECLERE TISSUE PRETREATMENT FOR IHC

Declere may be used whenever immunohistochemistry staining is performed on formalin-fixed, paraffin-embedded tissue sections. Using this product encourages standardization of the pretreatment procedure, thereby producing more consistent and reliable results.

DECALCIFIERS FOR TISSUE PROCESSING

Decalcification is necessary for optical microscopic examinations of hard tissue in routine histological procedures. Our EDTA formulation based OSTEOSOFT is best suited for decalcification of sensitive, calcium-containing tissues, such as iliac crest biopsies. OSTEOSOFT is used only once; a fresh solution must be used for each tissue. We offer another

variant, OSTEOMOLL, that can be used for the decalcification of hard tissue such as teeth and bone as its formulation is based on formaldehyde and acetic acid. Whereby OSTEOSOFT preserves the antigen structures in the tissue, thus, an IHC analysis can be performed, OSTEOMOLL will be used for tissues that are not destined for antibody analysis. Both decalcifiers can be used for clinical diagnostic purposes and in laboratory accreditation processes as they are certified and registered as IVD and CE products.

ANTIBODY DILUENTS FOR IMMUNOHISTOCHEMISTRY

We offer ready-to-use antibody diluents that are designed for the dilution and stabilization of both polyclonal and monoclonal antibodies, as well as, for the preparation of negative control reagents in immunohistochemistry. Our product, Diamond antibody diluent contains Tris buffer (pH 7.3-7.7) with 1% BSA and <0.1% sodium azide. We also provide Emerald, a PBS buffer-based antibody diluent, that can also be used to stabilize diluted antibodies when stored at 2-8 °C. Both products are designed to minimize the non-specific reaction that may be caused by the antibody and encourage specific antigen-antibody binding.

HIDEF DETECTION™ HRP POLYMER SYSTEM

HiDef Detection™ polymer system is a visualization system that is ready-to-use in immunohistochemical protocols. This two-step system uses an indirect method resulting in an antibody-enzyme complex that universally detects mouse and rabbit primary antibodies. The resulting chromogenic reaction can be visualized by HRP-compatible chromogens using light microscopy. It is biotin-free and eliminates non-specific staining that could result from endogenous biotin. This visualization system consists of two detection reagents and is based on the sequential application of HiDef Detection™ Amplifier (Mouse and Rabbit) followed by HiDef Detection™ HRP Polymer Detector, amplifying the detection of low expressing antigens. This detection system is compatible with both manual and open automated staining platforms.

HIDEF DETECTION™ ALK PHOS POLYMER SYSTEM

We supply the HiDef Detection™ Alk Phos Mouse/Rabbit polymer system, an extremely sensitive immunoenzymatic detection kit. The kit is an indirect, biotin-free polymer detection kit for detecting mouse IgG, mouse IgM and rabbit primary antibodies. As a result, nonspecific staining from endogenous avidin-biotin activity is eliminated.

DAB-BUFFER TABLETS

DAB-buffer tablets are used to prepare a DAB-chromogen solution required for the detection of peroxidase reactions in immunohistochemistry. 3,3'-Diaminobenzidine (DAB) is a peroxidase substrate producing a brown colored product that is insoluble in alcohol. The peroxidase chromogen is used for the visualization of antigenic structures in cryostat and paraffin sections in immunohistochemistry and should be used with non-aqueous specimens. The reagent is sufficient for 50 staining procedures. It is registered as IVD and CE product.

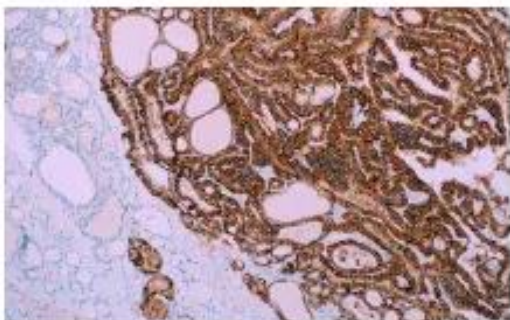
IHC WASH BUFFERS PLUS TWEEN 20

We offer TBS and PBS immunohistochemistry wash buffers with TWEEN 20. These are 20X concentrated solutions that are employed to rinse reagents off slides and to provide a medium for short-term storage of immunohistochemistry specimens.

UNIVERSAL NEGATIVE CONTROL SERUM

The Universal Negative Control Serum reagent is used in IHC assays where both mouse and rabbit primary antibodies produce antigen-specific recognition and binding. These reagents aid in the identification of cells, tissues, or tissue components, which may nonspecifically bind antibodies and thereby facilitate interpretation.

Cell Marque™ IHC Antibodies



Our Cell Marque™ antibody product line includes a comprehensive portfolio of primary antibodies suitable for immunohistochemistry (IHC) on formalin-fixed paraffin embedded tissue samples. We focus primarily on *in vitro* diagnostics (IVD), to provide established and novel antibodies, detection systems, and advanced ancillary reagents for clinical testing. With a medical team on staff, we are able to guarantee the performance and high quality of our antibodies, in order to supply you with the best care for your patients.

Cell Marque™ IHC products offer you innovation that can only come from a company whose focus for over 25 years has been geared toward producing medically relevant antibodies for clinical pathology. Our trusted Cell Marque™ antibodies are guaranteed to provide the most reproducible staining results.

Search for Cell Marque™ IHC antibodies either by antigen or by specialty. Specialty-specific clinical antibody categories include breast/gynecological pathology, dermatopathology, hematopathology, pediatric pathology, gastrointestinal (GI) pathology, cytopathology, pulmonary pathology, head & neck pathology, and other key areas.

201M-9

Actin, Muscle Specific (HHF35) Mouse Monoclonal Antibody



202M-9

Actin, Smooth Muscle (1A4) Mouse Monoclonal Antibody



380R-2

Arginase-1 (EP261) Rabbit Monoclonal Primary Antibody



380R-1

Arginase-1 (SP156) Rabbit Monoclonal Antibody



225M-1

BCA-225 (Cu-18) Mouse Monoclonal Antibody



226M-9

BCL2 (124) Mouse Monoclonal Antibody



227M-9

BCL6 (G1191E/A8) Mouse Monoclonal Antibody



403A-7

C3d Rabbit Polyclonal Antibody



404R-1

C4d (SP91) Rabbit Monoclonal Antibody



404A-1

C4d Rabbit Polyclonal Antibody



325M-1

CA-125 (OC125) Mouse Monoclonal Antibody



231R-1

Calponin-1 (EP798Y) Rabbit Monoclonal Primary Antibody



232R-1

Calretinin (SP13) Rabbit Monoclonal Antibody



379R-1

Carbonic Anhydrase IX (CA IX) (EP161) Rabbit Monoclonal Primary Antibody



402M-1

Cathepsin K (3F9) Mouse Monoclonal Antibody



110M-1

CD10 (56C6) Mouse Monoclonal Antibody



113R-2

CD13 (EP117) Rabbit Monoclonal Primary Antibody



138R-2

CD138 (EP201) Rabbit Monoclonal Primary Antibody



138M-1

CD138/syndecan-1 (B-A38) Mouse Monoclonal Antibody



114R-1

CD14 (EPR3653) Rabbit Monoclonal Primary Antibody

116R-1

CD16 (SP175) Rabbit Monoclonal Antibody



101R-1

CD1a (EP3622) Rabbit Monoclonal Primary Antibody



102M-1

CD2 (MRQ-11) Mouse Monoclonal Antibody



120M-8

CD20 (L26) Mouse Monoclonal Antibody



121R-1

CD21 (EP3093) Rabbit Monoclonal Primary Antibody



125M-1

CD25 (4C9) Mouse Monoclonal Antibody



103R-9

CD3 (MRQ-39) Rabbit Monoclonal Antibody



131R-2

CD31 (EP78) Rabbit Monoclonal Primary Antibody



133M-1

CD33 (PWS44) Mouse Monoclonal Antibody



134R-1

CD34 (EP88) Rabbit Monoclonal Primary Antibody



134M-1

CD34 (QBEnd/10) Mouse Monoclonal Antibody



135R-1

CD35 (EP197) Rabbit Monoclonal Primary Antibody



104R-1

CD4 (SP35) Rabbit Monoclonal Antibody



144M-9

CD44 (MRQ-13) Mouse Monoclonal Antibody



145M-9

CD45 (LCA) (2B11 & PD7/26) Mouse Monoclonal Antibody



205R-2

CD5 (EP77) Rabbit Monoclonal Primary Antibody



156R-9

CD56 (MRQ-42) Rabbit Monoclonal Antibody



161M-1

CD61 (2f2) Mouse Monoclonal Antibody



263M-1

CD63 (NKI/C3) Mouse Monoclonal Antibody



107R-1

CD7 (EP132) Rabbit Monoclonal Primary Antibody

171R-1

CD71 (EP232) Rabbit Monoclonal Primary Antibody



179R-1

CD79a (SP18) Rabbit Monoclonal Antibody



108M-9

CD8 (C8/144B) Mouse Monoclonal Antibody



235R-1

CDX-2 (EPR2764Y) Rabbit Monoclonal Primary Antibody



236A-1

CEA Rabbit Polyclonal Antibody



238M-9

Chromogranin A (LK2H10) Mouse Monoclonal Antibody



424M-1

CITED1 (5H6) Mouse Monoclonal Antibody



359A-1

Claudin 1 Rabbit Polyclonal Antibody



241R-4

Cyclin D1 (EP12) Rabbit Monoclonal Primary Antibody



334M-8

Cytokeratin (34betaE12) Mouse Monoclonal Antibody



335M-9

Cytokeratin (35betaH11) Mouse Monoclonal Antibody



452M-9

Cytokeratin (CAM 5.2) Mouse Monoclonal Antibody



314M-1

Cytokeratin 14 (LL002) Mouse Monoclonal Antibody



314R-1

Cytokeratin 14 (SP53) Rabbit Monoclonal Antibody



317R-1

Cytokeratin 17 (EP98) Rabbit Monoclonal Primary Antibody



319R-2

Cytokeratin 19 (EP72) Rabbit Monoclonal Primary Antibody

320M-1

Cytokeratin 20 (Ks20.8) Mouse Monoclonal Antibody

905H-0

Cytokeratin 5 (EP1601Y) + Cytokeratin 14 (LL002)

Mouse and Rabbit Monoclonal Antibody

356M-1

Cytokeratin 5 & 6 (D5 & 16B4) Mouse Monoclonal Antibody

356R-1

Cytokeratin 5 & 6 (EP24 & EP67) Rabbit Monoclonal Primary Antibody

307M-9

Cytokeratin 7 (OV-TL 12/30) Mouse Monoclonal Antibody

818M-9

Cytokeratin 8 & 18 (B22.1 & B23.1) Mouse Monoclonal Antibody

313M-1

Cytokeratin Cocktail (AE1 & AE3) Mouse Monoclonal Antibody

303M-1

Cytokeratin, HMW (AE3) Mouse Monoclonal Antibody

301M-1

Cytokeratin, LMW (AE1) Mouse Monoclonal Antibody

247M-9

EMA (E29) Mouse Monoclonal Antibody

248M-1

Ep-CAM/Epithelial Specific Antigen (MOC-31) Mouse Monoclonal Antibody

434R-1

ERG (EP111) Rabbit Monoclonal Primary Antibody

251R-1
Factor XIIIa (EP3372) Rabbit Monoclonal Primary Antibody

252M-1
Fascin (55k-2) Mouse Monoclonal Antibody

254M-1
FLI-1 (MRQ-1) Mouse Monoclonal Antibody

350R-2
FOXP1 (EP137) Rabbit Monoclonal Primary Antibody

350R-1
FoxP1 (SP133) Rabbit Monoclonal Antibody

256A-1
Gastrin Rabbit Polyclonal Antibody

390M-1
GATA3 (L50-823) Mouse Monoclonal Antibody

257M-1
GCDFP-15 (23A3) Mouse Monoclonal Antibody

208A-7
GH Rabbit Polyclonal Antibody

258R-1
Glial Fibrillary Acidic Protein (EP672Y) Rabbit Monoclonal Primary Antibody

259R-1
Glucagon (EP74) Rabbit Monoclonal Primary Antibody

259A-1
Glucagon Rabbit Polyclonal Antibody

413A-1
GLUT3 Rabbit Polyclonal Antibody

389M-1
Glutamine Synthetase (GS-6) Mouse Monoclonal Antibody

261M-9
Glypican-3 (1G12) Mouse Monoclonal Antibody

262R-1
Granzyme B (EP230) Rabbit Monoclonal Primary Antibody

234A-1
hCG Rabbit Polyclonal Antibody

264M-9
Hepatocyte Specific Antigen (Hep Par-1) (OCH1E5) Mouse Monoclonal Antibody

904H-0
HMB-45 + MART-1 (Melan A) (A103) + Tyrosinase (T311) Mouse Monoclonal Antibody

267R-1
IgA (EP170) Rabbit Monoclonal Primary Antibody

268R-1
IgD (EP173) Rabbit Monoclonal Primary Antibody

268A-1
IgD Rabbit Polyclonal Antibody

433R-1
IMP3 (EP286) Rabbit Monoclonal Primary Antibody

271R-2
Inhibin, alpha (MRQ-63) Rabbit Monoclonal Antibody

271M-1
Inhibin, alpha (R1) Mouse Monoclonal Antibody

274R-1
Kappa (EP171) Rabbit Monoclonal Primary Antibody



274M-9

Kappa (L1C1) Mouse Monoclonal Antibody



275R-1

Ki-67 (SP6) Rabbit Monoclonal Antibody



276M-9

Ksp-cadherin (MRQ-33) Mouse Monoclonal Antibody



277M-9

Lambda (Lamb14) Mouse Monoclonal Antibody



442R-1

LEF1 (EP310) Rabbit Monoclonal Primary Antibody



209A-1

LH Rabbit Polyclonal Antibody

280R-1

Mammaglobin (31A5) Rabbit Monoclonal Antibody



281M-9

MART-1 (Melan A) (M2-7C10) Mouse Monoclonal Antibody



284M-9

Microphthalmia Transcription Factor (Mitf) (C5/D5) Mouse Monoclonal Antibody



290R-1

MUC1 (EP85) Rabbit Monoclonal Primary Antibody



406M-1

MUC4 (8G7) Mouse Monoclonal Antibody



358R-1

MUM1 (EP190) Rabbit Monoclonal Primary Antibody



358M-1

MUM1 (MRQ-8) Mouse Monoclonal Antibody

289R-2
Myeloperoxidase (EP151) Rabbit Monoclonal Primary Antibody

386R-1
MyoD1 (EP212) Rabbit Monoclonal Primary Antibody

296R-1
Myogenin (EP162) Rabbit Monoclonal Primary Antibody

296M-1
Myogenin (F5D) Mouse Monoclonal Antibody

297A-7
Myoglobin Rabbit Polyclonal Antibody

298R-1
Myosin, Smooth Muscle (EP166) Rabbit Monoclonal Primary Antibody

298M-1
Myosin, Smooth Muscle (SMMS-1) Mouse Monoclonal Antibody

352M-9
Napsin A (MRQ-60) Mouse Monoclonal Antibody

302R-1
Neurofilament (EP79) Rabbit Monoclonal Primary Antibody

445R-1
NKX2.2 (EP336) Rabbit Monoclonal Primary Antibody

441R-1
NKX3.1 (EP356) Rabbit Monoclonal Primary Antibody

309M-1
Oct-4 (MRQ-10) Mouse Monoclonal Antibody

387R-1

Olig2 (EP112) Rabbit Monoclonal Primary Antibody

280R-1

Mammaglobin (31A5) Rabbit Monoclonal Antibody



281M-9

MART-1 (Melan A) (M2-7C10) Mouse Monoclonal Antibody



284M-9

Microphthalmia Transcription Factor (MiTF) (C5/D5) Mouse Monoclonal Antibody



290R-1

MUC1 (EP85) Rabbit Monoclonal Primary Antibody



406M-1

MUC4 (8G7) Mouse Monoclonal Antibody



358R-1

MUM1 (EP190) Rabbit Monoclonal Primary Antibody



358M-1

MUM1 (MRQ-8) Mouse Monoclonal Antibody



289R-2

Myeloperoxidase (EP151) Rabbit Monoclonal Primary Antibody



386R-1

MyoD1 (EP212) Rabbit Monoclonal Primary Antibody



296R-1

Myogenin (EP162) Rabbit Monoclonal Primary Antibody



296M-1

Myogenin (F5D) Mouse Monoclonal Antibody



297A-7

Myoglobin Rabbit Polyclonal Antibody



298R-1

Myosin, Smooth Muscle (EP166) Rabbit Monoclonal Primary Antibody



298M-1

Myosin, Smooth Muscle (SMMS-1) Mouse Monoclonal Antibody



352M-9

Napsin A (MRQ-60) Mouse Monoclonal Antibody



302R-1

Neurofilament (EP79) Rabbit Monoclonal Primary Antibody



445R-1

NKX2.2 (EP336) Rabbit Monoclonal Primary Antibody



441R-1

NKX3.1 (EP356) Rabbit Monoclonal Primary Antibody



309M-1

Oct-4 (MRQ-10) Mouse Monoclonal Antibody



387R-1

Olig2 (EP112) Rabbit Monoclonal Primary Antibody

420M-1

p120 Catenin (MRQ-5) Mouse Monoclonal Antibody



453R-2

p53 (EP9) Rabbit Monoclonal Primary Antibody



312M-1

PAX-5 (24) Mouse Monoclonal Antibody



312R-2

PAX-5 (EP156) Rabbit Monoclonal Primary Antibody



363M-1

PAX-8 (MRQ-50) Mouse Monoclonal Antibody



363A-1

PAX-8 Rabbit Polyclonal Antibody



315R-1

PD-1 (EP239) Rabbit Monoclonal Primary Antibody



369A-1

Phosphohistone H3 (PHH3) Rabbit Polyclonal Antibody



422R-1

PHOX2B (EP312) Rabbit Monoclonal Primary Antibody



365M-9

PNL2 (PNL2) Mouse Monoclonal Antibody



322M-1

Podoplanin (D2-40) Mouse Monoclonal Antibody



210A-1

Prolactin Rabbit Polyclonal Antibody



324R-1

PSA (EP109) Rabbit Monoclonal Primary Antibody



329M-9

Renal Cell Carcinoma (PN-15) Mouse Monoclonal Antibody



330M-1

S-100 (4C4.9) Mouse Monoclonal Antibody



449R-1

S100 beta (EP32) Rabbit Monoclonal Primary Antibody



408R-1

S100A1 (EP184) Rabbit Monoclonal Primary Antibody



385R-1

SALL4 (EP299) Rabbit Monoclonal Primary Antibody



384R-1

SATB2 (EP281) Rabbit Monoclonal Primary Antibody



332R-1

Somatostatin (EP130) Rabbit Monoclonal Primary Antibody

420M-1

p120 Catenin (MRQ-5) Mouse Monoclonal Antibody



453R-2

p53 (EP9) Rabbit Monoclonal Primary Antibody



312M-1

PAX-5 (24) Mouse Monoclonal Antibody



312R-2

PAX-5 (EP156) Rabbit Monoclonal Primary Antibody



363M-1

PAX-8 (MRQ-50) Mouse Monoclonal Antibody



363A-1

PAX-8 Rabbit Polyclonal Antibody



315R-1

PD-1 (EP239) Rabbit Monoclonal Primary Antibody



369A-1

Phosphohistone H3 (PHH3) Rabbit Polyclonal Antibody



422R-1

PHOX2B (EP312) Rabbit Monoclonal Primary Antibody



365M-9

PNL2 (PNL2) Mouse Monoclonal Antibody



322M-1

Podoplanin (D2-40) Mouse Monoclonal Antibody



210A-1

Prolactin Rabbit Polyclonal Antibody



324R-1

PSA (EP109) Rabbit Monoclonal Primary Antibody



329M-9

Renal Cell Carcinoma (PN-15) Mouse Monoclonal Antibody



330M-1

S-100 (4C4.9) Mouse Monoclonal Antibody



449R-1

S100 beta (EP32) Rabbit Monoclonal Primary Antibody



408R-1

S100A1 (EP184) Rabbit Monoclonal Primary Antibody



385R-1

SALL4 (EP299) Rabbit Monoclonal Primary Antibody



384R-1

SATB2 (EP281) Rabbit Monoclonal Primary Antibody



332R-1

Somatostatin (EP130) Rabbit Monoclonal Primary Antibody

383R-1

SOX-10 (EP268) Rabbit Monoclonal Primary Antibody



382M-1

SOX-11 (MRQ-58) Mouse Monoclonal Antibody



371R-2

SOX-2 (EP103) Rabbit Monoclonal Primary Antibody



371R-1

SOX-2 (SP76) Rabbit Monoclonal Antibody



426R-1

STAT6 (EP325) Rabbit Monoclonal Primary Antibody



336R-1

Synaptophysin (EP158) Rabbit Monoclonal Primary Antibody



357M-1

TCL1 (MRQ-7) Mouse Monoclonal Antibody



338R-2

TdT (EP266) Rabbit Monoclonal Primary Antibody



338A-7

TdT Rabbit Polyclonal Antibody



339M-1

Thrombomodulin (1009) Mouse Monoclonal Antibody



340M-1

Thyroglobulin (2H11+6E1) Mouse Monoclonal Antibody



401M-1

TLE1 (1F5) Mouse Monoclonal Antibody



342M-1

Tryptase (G3) Mouse Monoclonal Antibody



343M-9

TTF-1 (8G7G3/1) Mouse Monoclonal Antibody



345M-1

Uroplakin III (AU-1) Mouse Monoclonal Antibody



347R-2

Vimentin (EP21) Rabbit Monoclonal Primary Antibody



347M-1

Vimentin (V9) Mouse Monoclonal Antibody



348M-9

WT1 (6F-H2) Mouse Monoclonal Antibody

Introduction

ProClin™ preservatives are used in over 1,000 FDA registered IVD kits from industry leading manufacturers. At low working concentrations, ProClin™ preservatives can help extend the shelf life of IVD reagents by effectively and immediately inhibiting a broad spectrum of microbes (**Figure 1 and Figure 2**). ProClin™ preservatives attack the Krebs cycle at four key points: the enzymes pyruvate dehydrogenase, α -ketoglutarate dehydrogenase, succinate dehydrogenase, and NADH dehydrogenase (**Figure 3**). Because all bacteria and fungi possess at least part of the Krebs cycle, ProClin™ preservatives are broad spectrum in their activity.

Preservative Selection

All four ProClin™ formulations are safe to use at recommended usage levels. Despite the good safety profile for users, a study conducted by an independent laboratory shows comparable efficacy to traditional preservatives such as thimerosal and sodium azide (**Table 1**).

This study indicates that ProClin™ 150 and ProClin™ 300 preservatives may be effective replacements for thimerosal and offer better protection than sodium azide, without the handling and disposal concerns associated with either traditional preservative.

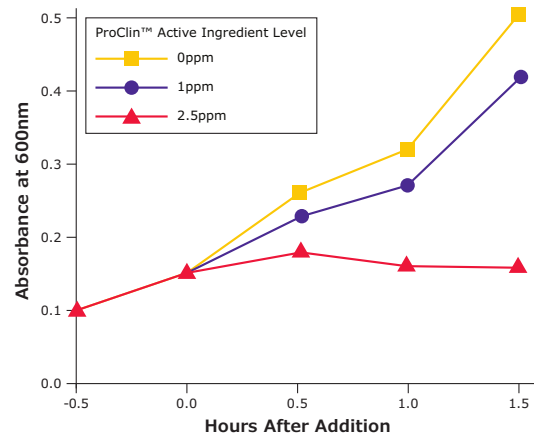


Figure 1. Rapid Inhibition of Growth

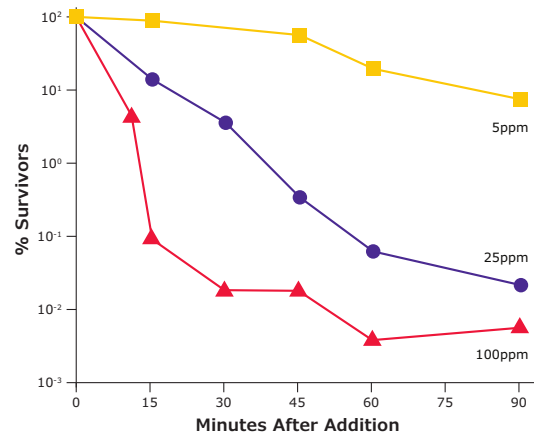


Figure 2. Cidal Activity of ProClin™ Preservatives (Cell Death)

Results of microbial challenge

Table 1. ProClin™ Preservatives, Thimerosal Pass Microbial Challenge (All values in CFU/mL).

Test Solution	First Inoculation	14-Day Count	Second Inoculation	14-Day Count	Third Inoculation	14-Day Count	Fourth Inoculation	14-Day Count
Unpreserved mPBS								
Tryptic Soy Broth Agar	3.38 x 10 ⁶	4.2 x 10 ⁶	3.30 x 10 ⁶	6.5 x 10 ⁶	a			
Potato Dextrose Agar	1.93 x 10 ⁶	2.1 x 10 ⁶	3.56 x 10 ⁶	1.31 x 10 ⁷	a			
0.1% Sodium Azide								
Tryptic Soy Broth Agar	3.38 x 10 ⁶	b	3.30 x 10 ⁶	d	a			
Potato Dextrose Agar	1.93 x 10 ⁶	c	3.56 x 10 ⁶	e	a			
0.005% Thimerosal								
Tryptic Soy Broth Agar	3.38 x 10 ⁶	<10	3.30 x 10 ⁶	<10	1.88 x 10 ⁶	<10	4.50 x 10 ⁶	<10
Potato Dextrose Agar	1.93 x 10 ⁶	<10	3.56 x 10 ⁶	<10	1.16 x 10 ⁶	<10	2.75 x 10 ⁶	<10
15 ppm ProClin™ 150								
Tryptic Soy Broth Agar	3.38 x 10 ⁶	<10	3.30 x 10 ⁶	<10	1.88 x 10 ⁶	<10	4.50 x 10 ⁶	<10
Potato Dextrose Agar	1.93 x 10 ⁶	<10	3.56 x 10 ⁶	<10	1.16 x 10 ⁶	<10	2.75 x 10 ⁶	<10
15 ppm ProClin™ 300								
Tryptic Soy Broth Agar	3.38 x 10 ⁶	<10	3.30 x 10 ⁶	<10	1.88 x 10 ⁶	<10	4.50 x 10 ⁶	<10
Potato Dextrose Agar	1.93 x 10 ⁶	<10	3.56 x 10 ⁶	<10	1.16 x 10 ⁶	<10	2.75 x 10 ⁶	<10

a Test ended due to growth on plates

b Aerobic bacteria count = 870 (membrane filtration method)

c Yeast/mold count = 950 (membrane filtration method)

d Aerobic bacteria count = >3,000 (spread plate method)

e Yeast/mold count = 980 (membrane filtration method)

Features of ProClin™ Preservatives

Feature	ProClin™ 150	ProClin™ 200	ProClin™ 300	ProClin™ 950
Active Ingredient (A.I.)	CMIT/MIT 1.5%	CMIT/MIT 1.5%	CMIT/MIT 3.0%	MIT 9.5%
Bactericide	++	++	++	++
Fungicide	+	+	+	+/-
Stabilizer	23-25% Mg salts	3% Mg and Cu salts	Alkyl Carboxylate (salt-free)	None
Matrix	Water	Water	Modified glycol	Water
Working pH Range	2.5 - 8.5	2.5 - 8.5	2.5 - 8.5	2 - 12
Temperature Range	< 45 °C	< 45 °C	< 45 °C	< 90 °C
Typical Dosage Levels (W/W)	0.06 - 0.10% (9 - 15 ppm A.I.)	0.06 - 0.10% (9 - 15 ppm A.I.)	0.03 - 0.05% (9 - 15 ppm A.I.)	0.053 - 0.158% (50 - 150 ppm A.I.)
Specific Gravity	1.20	1.02	1.03	1.02
Shelf Life	2 years	18 months	3 years	3 years

When choosing between formulations there are a few key differences to consider, namely salt content, matrix material, shelf life, and in the case of ProClin™ 950, active pH range. While ProClin™ 300 is our most popular product, with its absence of magnesium salts and a three-year shelf life, ProClin™ 950 is most appropriate when working with extreme pHs or temperatures.

To determine the appropriate product for your specific application, we offer a ProClin™ Variety Pack. This kit contains 5 mL of each, ProClin™ 150, 200, 300, and 950.

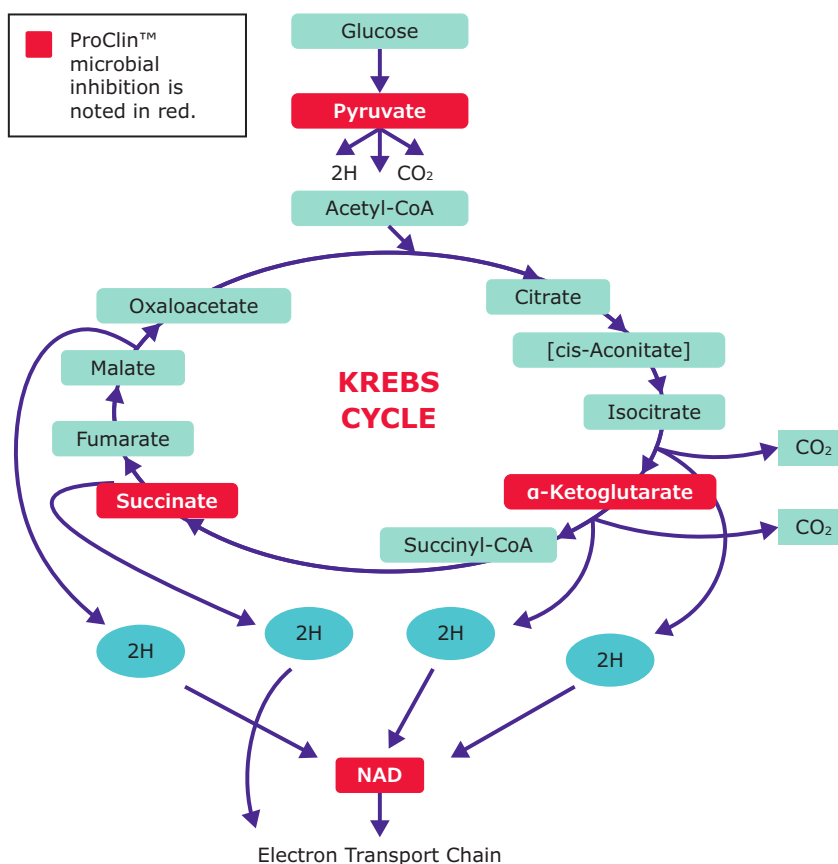















Figure 3. ProClin™ preservatives inhibit the Krebs Cycle at four key sites.

Sigma-Aldrich®

Lab & Production Materials

Ordering information

Product Description	Elevate Program	Cat. No.
ProClin™ Variety Pack		48119-U
ProClin™ 150		
50 mL bottle		49376-U
400 mL bottle		49377-U
3.6 L bottle		49378-U
15 L pail		49379-U
110 kg drum (91.7 L)		49380-U
ProClin™ 200		
50 mL bottle		48171-U
400 mL bottle		500380
3.6 L bottle		500399
15 L pail		500402
ProClin™ 300		
5 mL ampule		48934-U
50 mL bottle		48912-U
400 mL bottle		48914-U
2.0 L bottle		48915-U
3.6 L bottle		48917-U
18 L pail		48918-U
110 kg drum (106.8 L)		48919-U
ProClin™ 950		
5 mL ampule		46885-U
50 mL bottle		46878-U
400 mL bottle		46879-U
3.6 L bottle		46883-U
17 L pail		46884-U
110 kg drum (107.8 L)		799130

 The following products, indicated by the seal, are part of the Elevate Program.

ProClin™ preservatives are not intended for use as biocides/antimicrobial pesticides under global biocides/antimicrobial pesticides regulations.

Алматы (7273)495-231
Ангарск (3955)60-70-56
Архангельск (8182)63-90-72
Астрахань (8512)99-46-04
Барнаул (3852)73-04-60
Белгород (4722)40-23-64
Благовещенск (4162)22-76-07
Брянск (4832)59-03-52
Владивосток (423)249-28-31
Владикавказ (8672)28-90-48
Владимир (4922)49-43-18
Волгоград (844)278-03-48
Вологда (8172)26-41-59
Воронеж (473)204-51-73
Екатеринбург (343)384-55-89

Иваново (4932)77-34-06
Ижевск (3412)26-03-58
Иркутск (395)279-98-46
Казань (843)206-01-48
Калининград (4012)72-03-81
Калуга (4842)92-23-67
Кемерово (3842)65-04-62
Киров (8332)68-02-04
Коломна (4966)23-41-49
Кострома (4942)77-07-48
Краснодар (861)203-40-90
Красноярск (391)204-63-61
Курск (4712)77-13-04
Курган (3522)50-90-47
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13
Москва (495)268-04-70
Мурманск (8152)59-64-93
Набережные Челны (8552)20-53-41
Нижний Новгород (831)429-08-12
Новокузнецк (3843)20-46-81
Ноябрьск (3496)41-32-12
Новосибирск (383)227-86-73
Омск (3812)21-46-40
Орел (4862)44-53-42
Оренбург (3532)37-68-04
Пенза (8412)22-31-16
Петрозаводск (8142)55-98-37
Псков (8112)59-10-37

Пермь (342)205-81-47
Ростов-на-Дону (863)308-18-15
Рязань (4912)46-61-64
Самара (846)206-03-16
Саранск (8342)22-96-24
Санкт-Петербург (812)309-46-40
Саратов (845)249-38-78
Севастополь (8692)22-31-93
Симферополь (3652)67-13-56
Смоленск (4812)29-41-54
Сочи (862)225-72-31
Ставрополь (8652)20-65-13
Сургут (3462)77-98-35
Сыктывкар (8212)25-95-17
Тамбов (4752)50-40-97

Тверь (4822)63-31-35
Тольятти (8482)63-91-07
Томск (3822)98-41-53
Тула (4872)33-79-87
Тюмень (3452)66-21-18
Ульяновск (8422)24-23-59
Улан-Удэ (3012)59-97-51
Уфа (347)229-48-12
Хабаровск (4212)92-98-04
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Челябинск (351)202-03-61
Череповец (8202)49-02-64
Чита (3022)38-34-83
Якутск (4112)23-90-97
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