SunLong Biotech Co.,LTD
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Rabbit Anti-EpCAM antibody

SL0593R

Product Name	EpCAM
Chinese Name	上皮特异性抗原（CD326）抗体
Alias	Epithelial Specific Antigen; ESA; epithelial cell adhesion molecule; Tumor-associated calcium signal transducer 1EPCAM; EGP; KSA; M4S1; MH99; MK-1; 17-1A; CD326 ; EGP-2; EGP34; EGP40; KS1/4; MIC18; MOC31; TROP1;323/A3; CO-17A; Ep-CAM; HEA125; hEGP-2; CO17-1A; GA733-2; TACST-1; TACSTD1; ESA; KSA; M4S1; MK-1; DIAR5; TROP1; EGP314; HNPCC8; EPCAM_HUMAN.
Research Area	Tumour Cell adhesion molecule Cell Surface Molecule
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse (predicted:Rat,Dog,Pig,Cow,Rabbit)
Applications	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	35kDa
Detection molecular weight	40 kDa
Cellular localization	The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human EpCAM: 53-150/314 <Extracellular>
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Solution

Storage Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed PubMed

Product Detail

This gene encodes a carcinoma-associated antigen and is a member of a family that includes at least two type I membrane proteins. This antigen is expressed on most normal epithelial cells and gastrointestinal carcinomas and functions as a homotypic calcium-independent cell adhesion molecule. The antigen is being used as a target for immunotherapy treatment of human carcinomas. Mutations in this gene result in congenital tufting enteropathy. [provided by RefSeq, Dec 2008]

Function:
May act as a physical homophilic interaction molecule between intestinal epithelial cells (IECs) and intraepithelial lymphocytes (IELs) at the mucosal epithelium for providing immunological barrier as a first line of defense against mucosal infection. Plays a role in embryonic stem cells proliferation and differentiation. Up-regulates the expression of FABP5, MYC and cyclins A and E.

Subunit:
Monomer. Interacts with phosphorylated CLDN7.

Subcellular Location:
Lateral cell membrane; Single-pass type I membrane protein. Cell junction, tight junction. Note=Co-localizes with CLDN7 at the lateral cell membrane and tight junction.

Tissue Specificity:
Highly and selectively expressed by undifferentiated rather than differentiated embryonic stem cells (ESC). Levels rapidly diminish as soon as ESC's differentiate (at protein levels). Expressed in almost all epithelial cell membranes but not on mesodermal or neural cell membranes. Found on the surface of adenocarcinoma.

Post-translational modifications:
Hyperglycosylated in carcinoma tissue as compared with autologous normal epithelia. Glycosylation at Asn-198 is crucial for protein stability.

DISEASE:
Defects in EPCAM are the cause of diarrhea type 5 (DIAR5) [MIM:613217]. It is an intractable diarrhea of infancy characterized by villous atrophy and absence of inflammation, with intestinal epithelial cell dysplasia manifesting as focal epithelial tufts in the duodenum and jejunum. Defects in EPCAM are a cause of hereditary non-polyposis colorectal cancer type 8 (HNPCC8) [MIM:613244]. HNPCC is a disease associated with marked increase in cancer susceptibility. It is characterized by a familial predisposition to

early-onset colorectal carcinoma (CRC) and extra-colonic tumors of the gastrointestinal, urological and female reproductive tracts. HNPCC is reported to be the most common form of inherited colorectal cancer in the Western world. Clinically, HNPCC is often divided into two subgroups. Type I is characterized by hereditary predisposition to colorectal cancer, a young age of onset, and carcinoma observed in the proximal colon. Type II is characterized by increased risk for cancers in certain tissues such as the uterus, ovary, breast, stomach, small intestine, skin, and larynx in addition to the colon. Diagnosis of classical HNPCC is based on the Amsterdam criteria: 3 or more relatives affected by colorectal cancer, one a first degree relative of the other two; 2 or more generation affected; 1 or more colorectal cancers presenting before 50 years of age; exclusion of hereditary polyposis syndromes. The term 'suspected HNPCC' or 'incomplete HNPCC' can be used to describe families who do not or only partially fulfill the Amsterdam criteria, but in whom a genetic basis for colon cancer is strongly suspected. Note=HNPCC8 results from heterozygous deletion of 3-prime exons of EPCAM and intergenic regions directly upstream of MSH2, resulting in transcriptional read-through and epigenetic silencing of MSH2 in tissues expressing EPCAM.

Similarity:
Belongs to the EPCAM family.
Contains 1 thyroglobulin type-1 domain.

SWISS:
Q99JW5

Gene ID:
4072

Database links:

Entrez Gene: 4072 Human

Entrez Gene: 514039 Cow

Entrez Gene: 17075 Mouse

Entrez Gene: 403163 Pig

Entrez Gene: 171577 Rat

Omim: 185535 Human

SwissProt: Q3T0L5 Cow

SwissProt: P16422 Human

SwissProt: Q99JW5 Mouse

SwissProt: Q75QW1 Pig

SwissProt: O55159 Rat

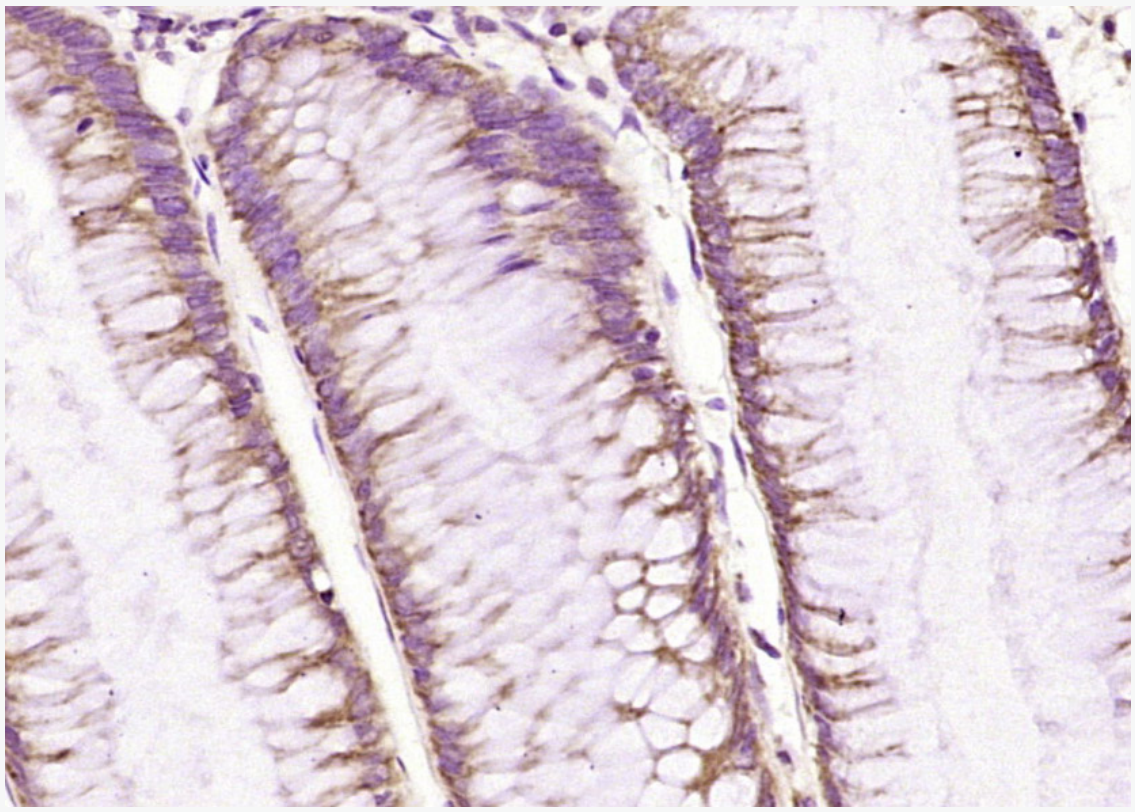
Unigene: 542050 Human

Unigene: 4259 Mouse

Unigene: 106481 Rat

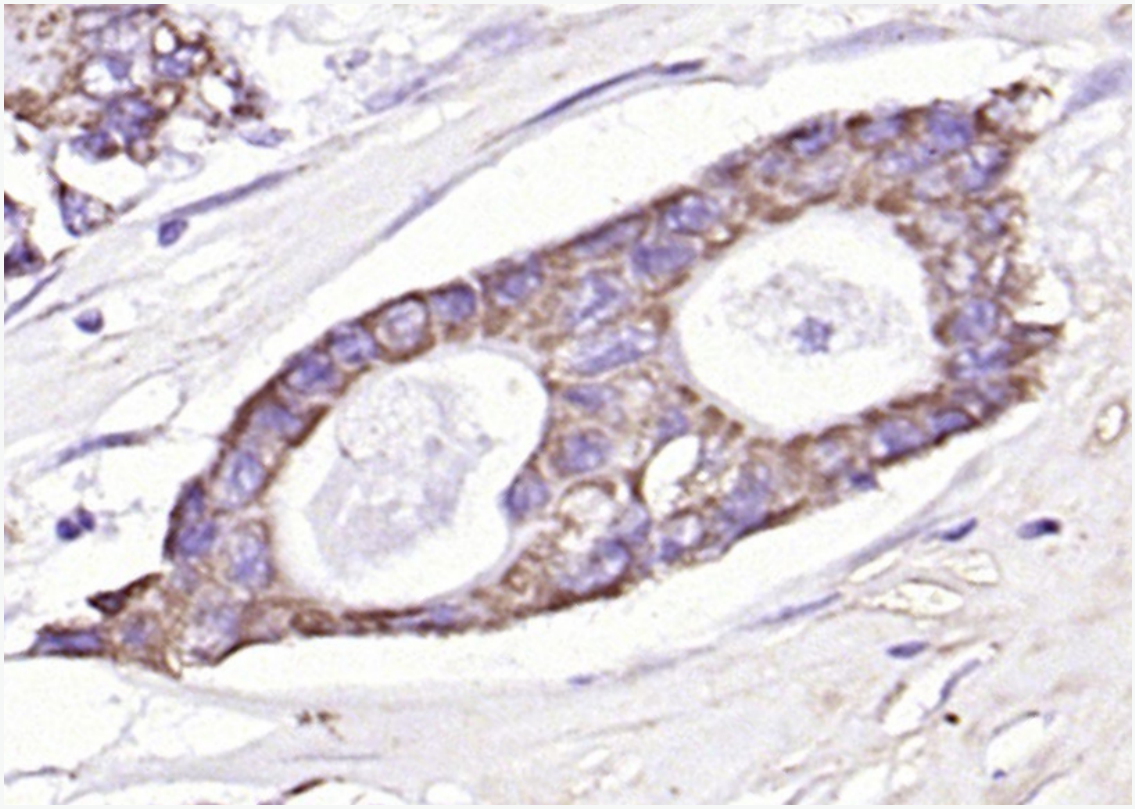
ESA 是分子量为 35KDa 的细胞表面 glycoprotein,属广谱的 epithelial cellsMaker,大多数的 epithelial cells 均为阳性反应,主要用于各种 epithelial cells 及其来源的 Tumour 的表达。

Product Picture



Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous

peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (EpCAM) Polyclonal Antibody, Unconjugated (SL0593R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (human rectal carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (EpCAM) Polyclonal Antibody, Unconjugated (SL0593R) at 1:200 overnight at 4°C, followed by operating according

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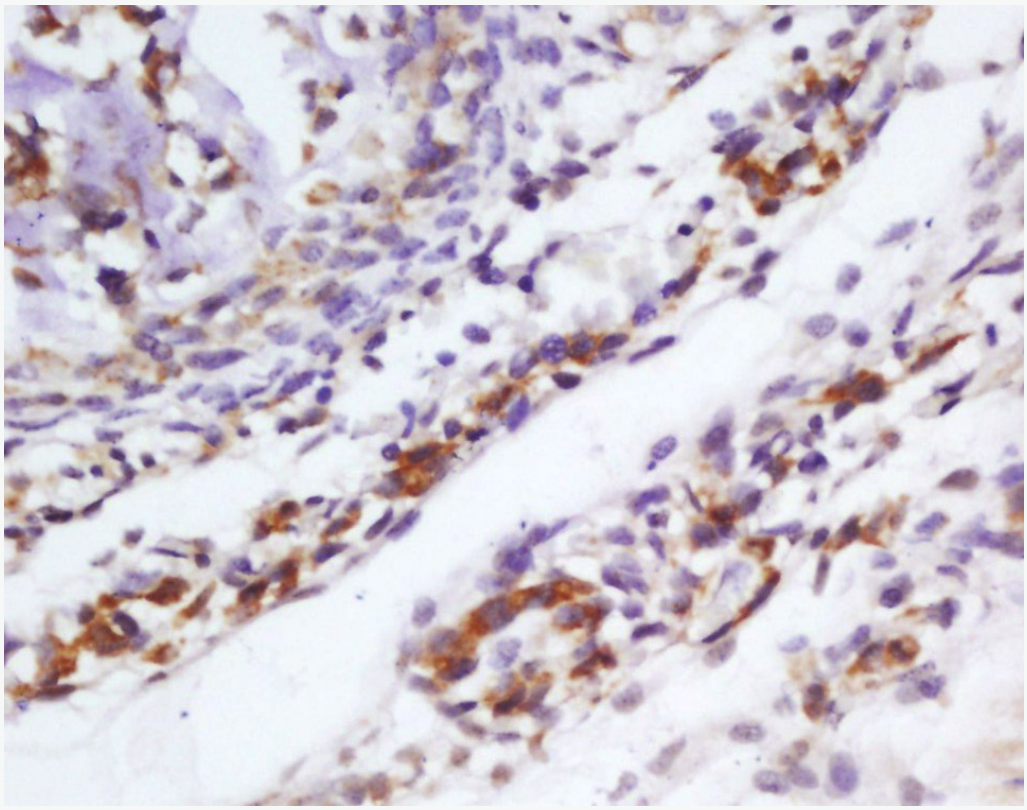

Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-EpCAM Polyclonal Antibody, Unconjugated(SL0593R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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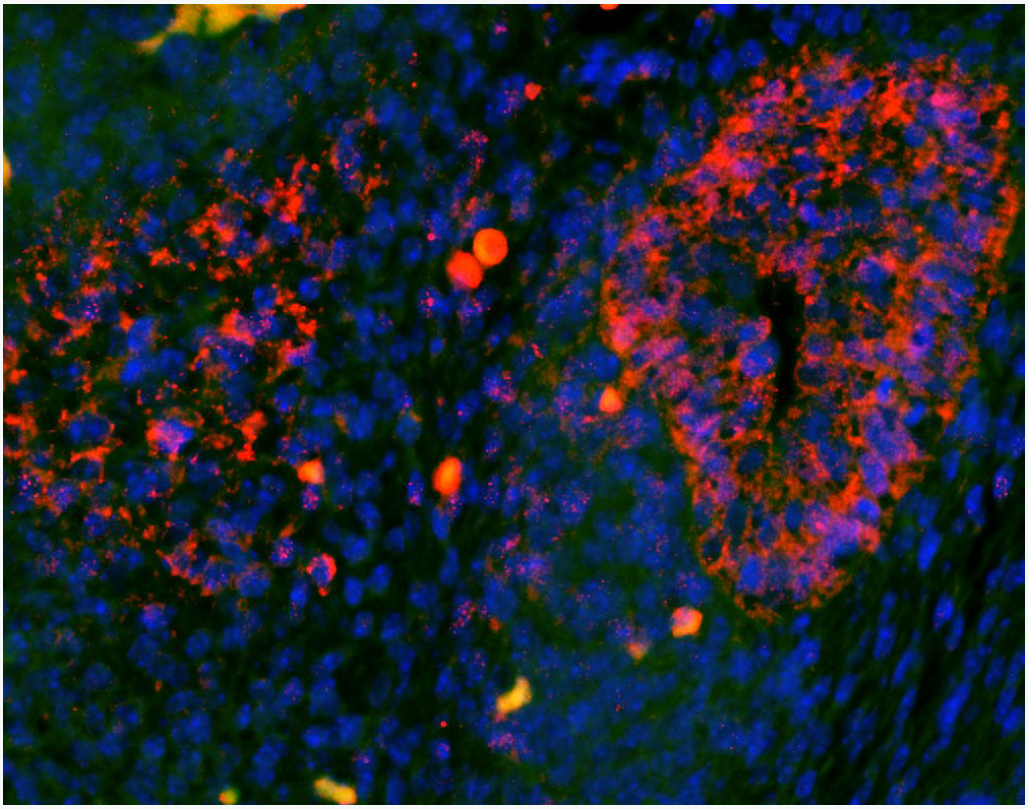

Tissue/cell: mouse embryo tissue;4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-EpCAM Polyclonal Antibody, Unconjugated(SL0593R) 1:200, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(SL0295G-Cy3)used at 1:200 dilution for 40 minutes at 37°C.

DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei

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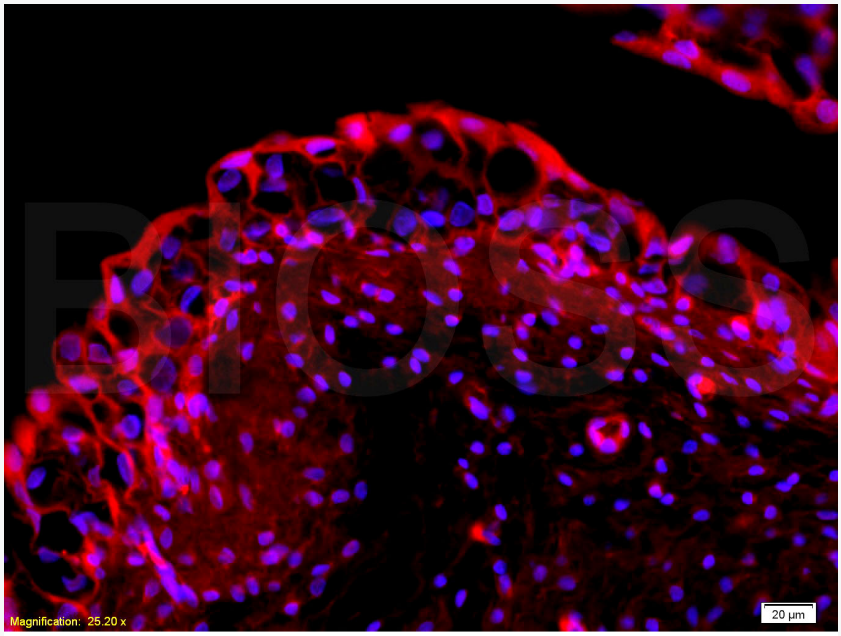

bs-0593R Anti-Ep-CAM Polyclonal Antibody
Tissue/cell: rabbit bladder;4% Paraformaldehyde-fixed and paraffin-embedded
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min
Blocking buffer (normal goat serum) at 37℃ for 20 min
Incubation: Anti-Ep-CAM Polyclonal Antibody, Unconjugated(bs-0593R) 1:200, overnight at 4°C, The secondary antibody was Goat Anti-Rabbit IgG, PE conjugated(bs-0295G-PE)used at 1:200 dilution for 40 minutes at 37°C. DAPI(5ug/ml,blue) was used to stain the cell nuclei