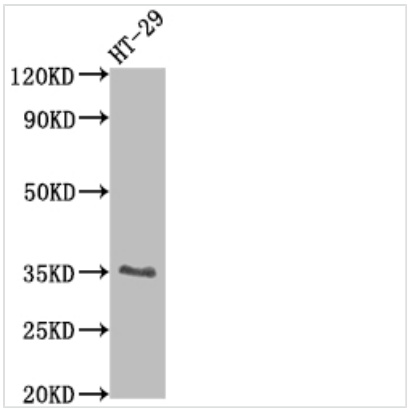
EPCAM Recombinant Monoclonal Antibody

Product Code	CSB-RA932207A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P16422
Immunogen	A synthesized peptide derived from human EpCAM
Species Reactivity	Human
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Tags & Cell Markers
Gene Names	EPCAM
Clone No.	3H12

Image



Western Blot
Positive WB detected in: HT-29 whole cell lysate
All lanes: EPCAM antibody at 1:2000
Secondary
Goat polyclonal to rabbit IgG at 1/50000 dilution
Predicted band size: 35 kDa
Observed band size: 35 kDa

Description

The EPCAM recombinant monoclonal antibody is prepared using protein technology and DNA recombinant technology. To begin, mice are immunized with a synthesized peptide derived from human EPCAM. After a certain period, the spleen is removed from the mice under aseptic conditions, and total RNA is extracted from the spleen cells. The cDNA synthesized by RNA reverse transcription serves as the template for PCR amplification of the EPCAM antibody gene. The resulting gene is then introduced into a vector and transfected into host cells for culture. The EPCAM recombinant monoclonal antibody is purified from the supernatant of the cell culture by affinity chromatography. It has been validated for use in the detection of human EPCAM protein in ELISA and WB experiments.

The EPCAM protein is a transmembrane glycoprotein that plays a role in cell adhesion and signaling. It is expressed on the surface of epithelial cells and is involved in various cellular processes such as cell proliferation, differentiation, and migration. EPCAM mainly functions in cell-cell adhesion, specifically in maintaining the integrity of epithelial tissues. EPCAM also plays a role in signaling pathways. It can activate the Wnt signaling pathway, which regulates cell proliferation, differentiation, and survival. EPCAM also interacts with other signaling pathways such as the Notch and EGFR pathways, and has been implicated in cancer progression and stem cell biology.