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-20°C

#98611

CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb



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Entrez-Gene ID #57823
UniProt ID #Q9NQ25

New 12/18

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications W, IHC-P Endogenous	Species Cross-Reactivity* H	Molecular Wt. 25-80 kDa	Isotype Rabbit IgG**
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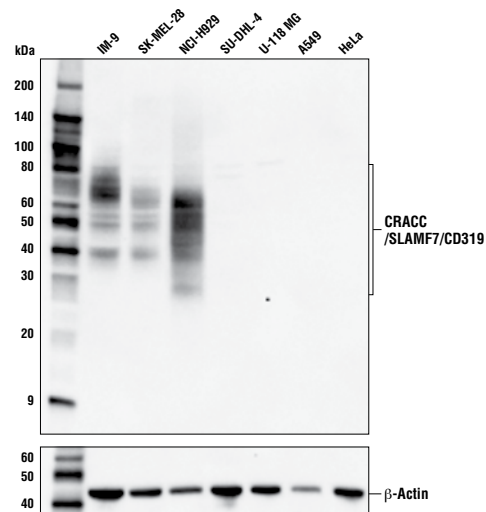
Background: CRACC/SLAMF7/CD319 (also known as CS1) is a member of the signaling lymphocytic activation molecule (SLAM) family. It is a single-pass type I transmembrane glycoprotein expressed on NK cells, subsets of mature dendritic cells, activated B and T lymphocytes, but not in promyelocytic B or T cell lines. Expression of this protein has been detected in the spleen, lymph node, peripheral blood leukocytes, bone marrow, small intestine, stomach, appendix, lung, and trachea (1-6). Homophilic interactions of CRACC/SLAMF7/CD319 modulate the activity and differentiation of immune cells. CRACC/SLAMF7/CD319 may function as an inhibitory or activating receptor in immune cells depending on cellular context and availability of adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2 (5-9). In the presence of SH2D1B/EAT-2, CRACC/SLAMF7/CD319 activates NK cells and B cells (5-7). T cells lack SH2D1B/EAT-2 expression, and therefore CRACC/SLAMF7/CD319 acts as an inhibitory receptor (8). In LPS-activated monocytes, CRACC/SLAMF7/CD319 negatively regulates production of proinflammatory cytokines (9). CRACC/SLAMF7/CD319 is upregulated in multiple myeloma and is implicated in the uncontrolled proliferation of these cells, and thus has become the target for therapeutic intervention (10, 11). Seven isoforms of CRACC/SLAMF7/CD319 produced by alternative splicing have been identified.

Background References:

- (1) Boles, K.S. and Mathew, P.A. (2001) *Immunogenetics* 52, 302-7.
- (2) Tovar, V. et al. (2002) *Immunogenetics* 54, 394-402.
- (3) Murphy, J.J. et al. (2002) *Biochem J* 361, 431-6.
- (4) Bouchon, A. et al. (2001) *J Immunol* 167, 5517-21.
- (5) Kumaresan, P.R. et al. (2002) *Mol Immunol* 39, 1-8.
- (6) Lee, J.K. et al. (2007) *J Immunol* 179, 4672-8.
- (7) Cruz-Munoz, M.E. et al. (2009) *Nat Immunol* 10, 297-305.
- (8) Kim, J.R. et al. (2013) *Inflamm Res* 62, 765-72.
- (9) Tai, Y.T. et al. (2008) *Blood* 112, 1329-37.
- (10) Hsi, E.D. et al. (2008) *Clin Cancer Res* 14, 2775-84.

Specificity/Sensitivity: CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb recognizes endogenous levels of total CRACC/SLAMF7/CD319 protein. This antibody may cross-react with several isoforms of CRACC/SLAMF7/CD319 and with varying levels of glycosylation. Non-specific staining was observed in prostate epithelium.

Source/Purification: Monoclonal antibody is produced by immunizing animals with recombinant protein specific to the amino terminus of human CRACC/SLAMF7/CD319 protein.



Western blot analysis of extracts from various human cells using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb (upper) and β -Actin (D6A8) Rabbit mAb #8457 (lower).

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C . Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:150
<i>Optimal IHC dilutions determined using SignalStain[®] Boost IHC Detection Reagent.</i>	
Unmasking buffer: SignalStain [®] Citrate Unmasking Solution (10X) #14746	
Antibody diluent: SignalStain [®] Antibody Diluent #8112	
Detection reagent: SignalStain [®] Boost (HRP, Rabbit) #8114	

Immunohistochemistry (Leica[®] BOND[™]) 1:400

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

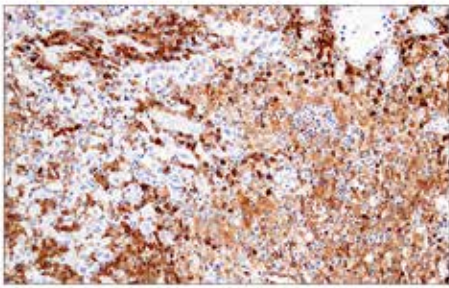
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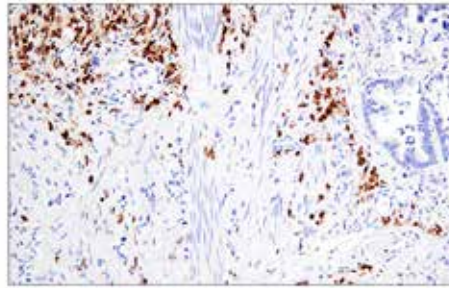
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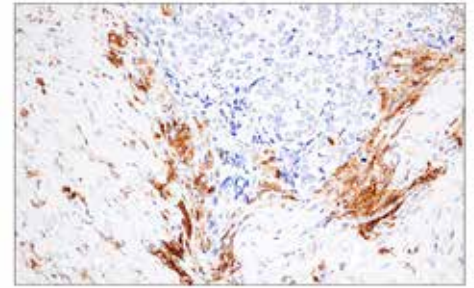
Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



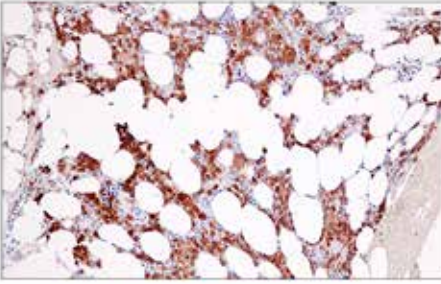
Immunohistochemical analysis of paraffin-embedded human urothelial carcinoma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb.



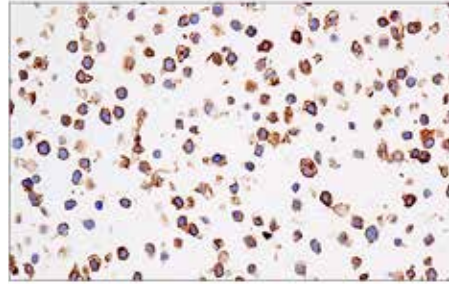
Immunohistochemical analysis of paraffin-embedded human esophageal carcinoma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb.



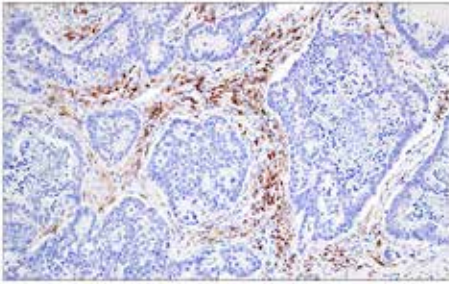
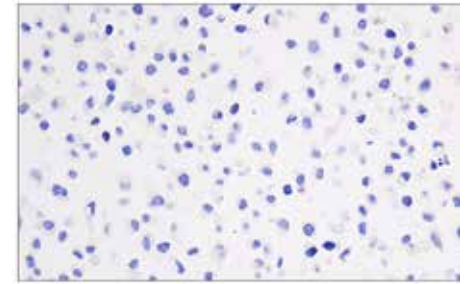
Immunohistochemical analysis of paraffin-embedded human squamous cell lung carcinoma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb.



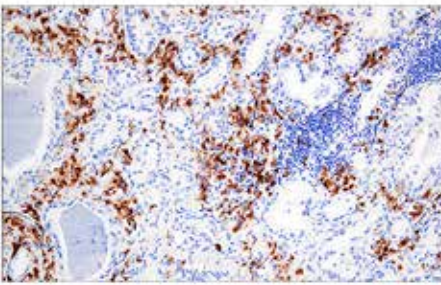
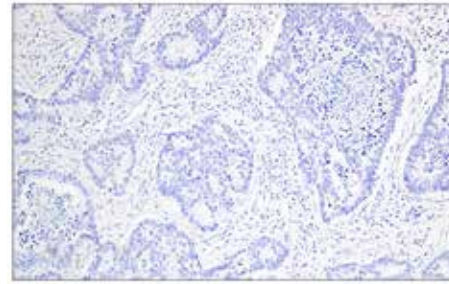
Immunohistochemical analysis of paraffin-embedded human multiple myeloma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded IM-9 cell pellet (left, positive) or HeLa cell pellet (right, negative) using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb (left) compared to concentration matched Rabbit (DA1E) mAb IgG XP[®] Isotype Control #3900 (right).



Immunohistochemical analysis of paraffin-embedded human lung adenocarcinoma using CRACC/SLAMF7/CD319 (E5C4M) Rabbit mAb performed on the Leica[®] BOND[™] Rx.

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