

CD82 (D7G6H) Rabbit mAb

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Applications: W, IHC-P	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 30-60	Source/Isotype: Rabbit IgG	UniProt ID: #P27701	Entrez-Gene Id: 3732
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Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:1200

Storage

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

Specificity/Sensitivity

CD82 (D7G6H) recognizes endogenous levels of total CD82 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile125 of human CD82 protein.

Background

CD82 (KAI1) belongs to the tetraspanin family, which is characterized by four transmembrane domains, one short extracellular domain (ECL1), and one long extracellular domain (ECL2). CD82 does not have enzymatic activity and appears to function by regulating the trafficking of other proteins and organization of the cell membrane (1). CD82 was originally described as a costimulator for T cells that directly associates with CD4 and CD8, and was subsequently identified during a screen as a metastasis suppressor in prostate cancer (2,3). CD82 has since been found to act as a metastasis suppressor in a variety of cancers, and its downregulation is associated with poor prognosis in research studies (4-6). CD82 suppresses metastasis through multiple mechanisms including inhibition of cell motility and invasion by modulating c-Met and the urokinase plasminogen activator surface receptor (uPAR), as well as promotion of homotypic cell-cell adhesion by stabilizing interactions between E-cadherin and β-catenin (7-9).

Background References

1. Tsai, Y.C. and Weissman, A.M. (2011) *FEBS Lett* 585, 3166-73.
2. Imai, T. et al. (1992) *J Immunol* 149, 2879-86.
3. Dong, J.T. et al. (1995) *Science* 268, 884-6.
4. Liu, F.S. et al. (2003) *Clin Cancer Res* 9, 1393-8.
5. Yang, X. et al. (2001) *Cancer Res* 61, 5284-8.
6. Lombardi, D.P. et al. (1999) *Cancer Res* 59, 5724-31.
7. Sridhar, S.C. and Miranti, C.K. (2006) *Oncogene* 25, 2367-78.
8. Bass, R. et al. (2005) *J Biol Chem* 280, 14811-8.
9. Abe, M. et al. (2008) *Cancer Lett* 266, 163-70.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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