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#56039**CD81 (D3N2D) Rabbit mAb**

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|                                       |                         |                                   |                        |                                      |                               |                               |
|---------------------------------------|-------------------------|-----------------------------------|------------------------|--------------------------------------|-------------------------------|-------------------------------|
| <b>Applications:</b><br>W, W-S, IHC-P | <b>Reactivity:</b><br>H | <b>Sensitivity:</b><br>Endogenous | <b>MW (kDa):</b><br>22 | <b>Source/Isotype:</b><br>Rabbit IgG | <b>UniProt ID:</b><br>#P60033 | <b>Entrez-Gene Id:</b><br>975 |
|---------------------------------------|-------------------------|-----------------------------------|------------------------|--------------------------------------|-------------------------------|-------------------------------|

**Product Usage Information****Application**

Western Blotting  
Simple Western™  
Immunohistochemistry (Paraffin)

**Dilution**

1:1000  
1:10  
1:100 - 1:400

**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.*

For a carrier free (BSA and azide free) version of this product see product #71381.

**Specificity/Sensitivity**

CD81 (D3N2D) Rabbit mAb recognizes endogenous levels of total CD81 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ile181 within an extracellular region of human CD81 protein.

**Background**

CD81 belongs to the tetraspanin family, which is characterized by four transmembrane domains, one short extracellular domain (ECL1), and one long extracellular domain (ECL2) (1-3). Tetraspanins interact with a variety of cell surface proteins and intracellular signaling molecules in specialized tetraspanin enriched microdomains (TEMs) where they mediate a range of processes including adhesion, motility, membrane organization, and signal transduction (3). CD81, like other tetraspanins, is enriched in exosomes (4). Many research studies demonstrate a role for CD81 in lymphocyte signaling (5-7). CD81 is also a well-characterized receptor for Hepatitis C Virus and facilitates the entry of the virus into target cells (8,9).

**Background References**

- Oren, R. et al. (1990) *Mol Cell Biol* 10, 4007-15.
- Levy, S. et al. (1991) *J Biol Chem* 266, 14597-602.
- Hemler, M.E. (2005) *Nat Rev Mol Cell Biol* 6, 801-11.
- Escola, J.M. et al. (1998) *J Biol Chem* 273, 20121-7.
- Levy, S. et al. (1998) *Annu Rev Immunol* 16, 89-109.
- Levy, S. and Shoham, T. (2005) *Nat Rev Immunol* 5, 136-48.
- Jones, E.L. et al. (2011) *Biochem Soc Trans* 39, 506-11.
- Pileri, P. et al. (1998) *Science* 282, 938-41.
- Bartosch, B. et al. (2003) *J Biol Chem* 278, 41624-30.

**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 **W-S:** Simple Western™ **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**H:** Human

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