Revision 3

Store at -20C

#55051

CD63 (D4I1X) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IHC-P	H	Endogenous	Rabbit IgG	#P08962	967

Product Usage Information

Application	Dilution
Immunohistochemistry (Paraffin)	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 #43890.

Specificity/Sensitivity

CD63 (D4I1X) Rabbit mAb recognizes endogenous levels of total CD63 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with recombinant CD63 protein.

Background

CD63 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). CD63, like other tetraspanins, is enriched in exosomes (4). It is also a component of Weibel-Palade bodies found in endothelial cells (5). Research studies demonstrate several functions of CD63 in different cell types, including roles in mast cell degranulation, VEGF signaling in endothelial cells, recruitment of leukocytes to endothelial cells, and endosomal sorting during melanogenesis (6-9).

Background References

1. Oren, R. et al. (1990) *Mol Cell Biol* 10, 4007-15.
2. Levy, S. et al. (1991) *J Biol Chem* 266, 14597-602.
3. Hemler, M.E. (2005) *Nat Rev Mol Cell Biol* 6, 801-11.
4. Escola, J.M. et al. (1998) *J Biol Chem* 273, 20121-7.
5. Vischer, U.M. and Wagner, D.D. (1993) *Blood* 82, 1184-91.
6. Kraft, S. et al. (2013) *J Immunol* 191, 2871-8.
7. Tugues, S. et al. (2013) *J Biol Chem* 288, 19060-71.
8. Doyle, E.L. et al. (2011) *Blood* 118, 4265-73.
9. van Niel, G. et al. (2011) *Dev Cell* 21, 708-21.

Species Reactivity

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

Applications Key

IHC-P: Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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Limited Uses

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