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#39300**CD5 (E8X3S) XP[®] Rabbit mAb**

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IHC-Bond, IHC-P	Reactivity: H Mk	Sensitivity: Endogenous	MW (kDa): 65	Source/Isotype: Rabbit IgG	UniProt ID: #P06127	Entrez-Gene Id: 921
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation
IHC Leica Bond
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:200
1:400
1:800

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 #86389.

Specificity/Sensitivity

CD5 (E8X3S) XP[®] Rabbit mAb recognizes endogenous levels of total CD5 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly219 of human CD5 protein.

Background

CD5 is a type-I transmembrane protein belonging to the scavenger receptor cysteine-rich (SRCR) family, characterized by the presence of at least one SRCR domain of 90-110 amino acids. CD5 is expressed by all mature T cells, the B-1a subset of mature B cells, and some leukemic B cells. Its expression is increased in regulatory T and B cells (Tregs/Bregs). Anergic T and B cells also have elevated CD5 expression. Elevated levels of CD5 are also found in many autoimmune disorders (1-3). CD5 is associated with the T cell receptor (TCR) and negatively modulates T cell activation and differentiation. CD5 expression on the tumor infiltrating T lymphocytes is inversely correlated with their antitumor activity (4-6). Recently, it was reported that CD5 directly binds to IL6 and can mediate downstream signaling. CD5+ B cells promote tumor growth in animal models (7). Reagents targeting CD5 have been actively pursued as therapeutic interventions for cancer and other conditions (8,9).

Background References

1. Raman, C. (2002) *Immunol Res* 26, 255-63.
2. Soldevila, G. et al. (2011) *Curr Opin Immunol* 23, 310-8.
3. Sigal, L.H. (2012) *J Clin Rheumatol* 18, 83-8.
4. Azzam, H.S. et al. (2001) *J Immunol* 166, 5464-72.
5. Dalloul, A. (2009) *Autoimmun Rev* 8, 349-53.
6. Henderson, J.G. et al. (2015) *Immunity* 42, 471-83.
7. Zhang, C. et al. (2016) *Immunity* 44, 913-923.
8. Consuegra-Fernández, M. et al. (2015) *Crit Rev Immunol* 35, 85-115.
9. Vasquez, M. et al. (2017) *Eur J Immunol* 47, 1108-1118.

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 **IP:** Immunoprecipitation **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human **Mk:** Monkey

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