

#10084

# CD5 (E6N9S) Rabbit mAb



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	M	Endogenous	70	Rabbit IgG	#P13379	12507

### Product Usage Information

#### Application

Western Blotting  
Immunohistochemistry (Paraffin)

#### Dilution

1:1000  
1:200 - 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 #39815.

### Specificity/Sensitivity

CD5 (E6N9S) Rabbit mAb recognizes endogenous levels of total CD5 protein. Non-specific staining was observed in brain by immunohistochemistry.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro95 of mouse 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

- Raman, C. (2002) *Immunol Res* 26, 255-63.
- Soldevila, G. et al. (2011) *Curr Opin Immunol* 23, 310-8.
- Sigal, L.H. (2012) *J Clin Rheumatol* 18, 83-8.
- Azzam, H.S. et al. (2001) *J Immunol* 166, 5464-72.
- Dalloul, A. (2009) *Autoimmun Rev* 8, 349-53.
- Henderson, J.G. et al. (2015) *Immunity* 42, 471-83.
- Zhang, C. et al. (2016) *Immunity* 44, 913-923.
- Consuegra-Fernández, M. et al. (2015) *Crit Rev Immunol* 35, 85-115.
- 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 nonfat dry milk, 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 **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey **Vir:** Virus **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 **GP:** Guinea Pig **Rab:** Rabbit **G:** Goat **All:** All Species Expected

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