



Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

Store at -20C
#3606

NCAM (CD56) Antibody

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

Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 140	Source/Isotype: Rabbit	UniProt ID: #P13591	Entrez-Gene Id: 4684
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

NCAM (CD56) Antibody detects endogenous levels of total NCAM protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding amino acid 800 of human NCAM. Antibodies are purified by protein A and peptide affinity chromatography.

Background

NCAM (neural cell adhesion molecule, CD56) is an adhesion glycoprotein with five extracellular immunoglobulin-like domains followed by two fibronectin type III repeats. Structural diversity is introduced by alternative splicing resulting in different cytoplasmic domains (1). NCAM mediates neuronal attachment, neurite extension, and cell-cell interactions through homo and heterophilic interactions. PSA (polysialic acid) post-translationally modifies NCAM and increases the metastatic potential of small cell lung carcinoma, Wilms' tumor, neuroblastoma, and rhabdomyosarcoma (2). CD56 is commonly used along with CD3 and CD16 to identify human natural killer (NK) cells (mouse NK cells do not express CD56) (3). Human NK cells are CD3-CD56+. The large subset with high CD16 expression are mature cytotoxic NK cells, while those with low CD16 expression are immature precursors and cytokine producers (4,5).

Background References

1. Cunningham, B. A. et al. (1987) *Science* 236, 799-806.
2. Seidenfaden, R. et al. (2003) *Mol. Cell. Biol.* 23, 5908-5918.
3. Hayakawa, Y. et al. (2006) *Immunol Rev* 214, 47-55.
4. Robertson, M.J. and Ritz, J. (1990) *Blood* 76, 2421-38.
5. Poli, A. et al. (2009) *Immunology* 126, 458-65.

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

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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