

F3/Contactin (D7D4X) Rabbit mAb

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Applications: W	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 140	Source/Isotype: Rabbit IgG	UniProt ID: #Q12860	Entrez-Gene Id: 1272
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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, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

F3/Contactin (D7D4X) Rabbit mAb recognizes endogenous levels of total F3/contactin protein. The antibody detects a 32 kDa protein of unknown identity in some tissue extracts.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Met774 of human F3/contactin protein.

Background

F3/contactin (CNTN, contactin 1) is a glycosylphosphatidylinositol (GPI)-anchored neural cell adhesion protein belonging to the immunoglobulin protein superfamily (1). During early mammalian development, F3/contactin is expressed in granule neuronal progenitor (GNP) cells, where it was shown to promote GNP differentiation, in part by antagonizing sonic hedgehog (SHH)-mediated proliferation (2). Biochemical studies have shown that F3/contactin interacts with the phosphatase PTPRZ on the surface of oligodendrocyte precursor cells, an association that was shown to be essential for oligodendrocyte maturation (3). F3/contactin expression is also abundant in post-mitotic neurons, where its functions as a neural cell adhesion protein have been suggested to play an important role in synaptic plasticity and memory (4). Although primarily associated with neuronal development and function, F3/contactin expression has also been implicated in extra-neuronal tumorigenesis. For example, expression of F3/contactin was detected in both primary prostate tumors, and lymph node and bone metastases, while patient tumor samples with detectable F3/contactin expression were associated with tumor progression and reduced recurrence-free survival (5).

Background References

1. Falk, J. et al. (2002) *Biol Cell* 94, 327-34.
2. Xenaki, D. et al. (2011) *Development* 138, 519-29.
3. Lamprinou, S. et al. (2011) *Proc Natl Acad Sci U S A* 108, 17498-503.
4. Gulisano, W. et al. (2017) *Mol Cell Neurosci* 81, 64-71.
5. Yan, J. et al. (2016) *Cancer Res* 76, 1603-14.

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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