

Semaphorin 3B (D5A2P) Rabbit mAb

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

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

Applications: W, IP	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 80	Source/Isotype: Rabbit IgG	UniProt ID: #Q13214	Entrez-Gene Id: 7869
-------------------------------	-------------------------	-----------------------------------	------------------------	--------------------------------------	-------------------------------	--------------------------------

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

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

Semaphorin 3B (D5A2P) Rabbit mAb recognizes endogenous level of total semaphorin 3B protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln717 of human semaphorin 3B protein.

Background

Semaphorins are a family of cell surface and secreted proteins initially recognized as axon guidance factors that control the development of the central nervous system (1). They are involved in cell migration, angiogenesis, and immune responses (2-6). Based on protein structure, there are eight classes of semaphorins. Class 3-7 semaphorins are expressed in vertebrates. Semaphorin 3 subfamily members are the only secreted semaphorins in vertebrates. There are seven semaphorin 3 proteins and their receptors include neuropilins and the type A/D family plexins (7-9).

Semaphorin 3B functions as a tumor suppressor, as research studies have shown that it is deleted or inactivated in lung and breast cancer (10,11). Overexpression of semaphorin 3B inhibits tumor cell proliferation and causes apoptosis (12,13). Semaphorin 3B also inhibits angiogenesis (14). Semaphorin 3B loses its activity upon cleavage by furin-like pro-protein convertases (14).

Background References

- Luo, Y. et al. (1993) *Cell* 75, 217-27.
- Kruger, R.P. et al. (2005) *Nat Rev Mol Cell Biol* 6, 789-800.
- Staton, C.A. (2011) *Biochem Soc Trans* 39, 1565-70.
- Ghanem, R.C. et al. (2011) *Curr Eye Res* 36, 989-96.
- Nakagawa, Y. et al. (2011) *J Immunol* 186, 2881-8.
- Suzuki, K. et al. (2008) *Nat Immunol* 9, 17-23.
- He, Z. and Tessier-Lavigne, M. (1997) *Cell* 90, 739-51.
- Kolodkin, A.L. et al. (1997) *Cell* 90, 753-62.
- Chen, H. et al. (1997) *Neuron* 19, 547-59.
- Tomizawa, Y. et al. (2001) *Proc Natl Acad Sci U S A* 98, 13954-9.
- Nassarre, P. et al. (2005) *Med Sci (Paris)* 21, 641-7.
- Tse, C. et al. (2002) *Cancer Res* 62, 542-6.
- Castro-Rivera, E. et al. (2004) *Proc Natl Acad Sci U S A* 101, 11432-7.
- Varshavsky, A. et al. (2008) *Cancer Res* 68, 6922-31.

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

Cross-Reactivity Key

H: Human

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
XP is a registered trademark of Cell Signaling Technology, Inc.

All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.