

LAMC1 Antibody



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 M R	Sensitivity: Endogenous	MW (kDa): 220-250	Source/Isotype: Rabbit	UniProt ID: #P11047	Entrez-Gene Id: 3915
-------------------------------	-----------------------------	-----------------------------------	-----------------------------	----------------------------------	-------------------------------	--------------------------------

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 and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

LAMC1 antibody recognizes endogenous levels of total LAMC1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Asp1365 of human LAMC1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Laminins are a family of proteins important for maintaining cellular basement membrane (BM) structure and function (1). Laminins exist as heterotrimers of alpha (LAMA), beta (LAMB), and gamma (LAMC) chains. LAMC1 (laminin gamma-1) is a ubiquitously expressed gamma chain, and has three distinct functional domain structures. The N-terminal LN domain binds to specific alpha and beta chains to form a unique laminin heterotrimer. The LE domain mediates interactions with nidogens, while the C-terminal coil-coil fragment is necessary for agrin association. Collectively, these interactions are critical for stabilization and function of the BM (1). Genetic ablation of LAMC1 has demonstrated a critical role for this protein in embryo implantation, lung and kidney development, and neuronal Schwann cell myelination and regeneration, in addition to Trypanosome infection (2-5). Upregulation of LAMC1 has also been associated with tumor progression in multiple tumor types (6-9), possibly by creating a BM environment that is favorable for cancer cell metastasis and invasion.

Background References

1. Yurchenco, P.D. (2011) *Cold Spring Harb Perspect Biol* 3, a004911.
2. Ramathal, C. et al. (2011) *J Biol Chem* 286, 19860-71.
3. Willem, M. et al. (2002) *Development* 129, 2711-22.
4. Chen, Z.L. and Strickland, S. (2003) *J Cell Biol* 163, 889-99.
5. Nde, P.N. et al. (2012) *Front Immunol* 3, 337.
6. Liétard, J. et al. (1997) *Am J Pathol* 151, 1663-72.
7. Nishikawa, R. et al. (2014) *Int J Oncol* 45, 401-10.
8. Huang, S.X. et al. (2016) *Int J Oncol* 49, 217-24.
9. Kashima, H. et al. (2015) *Gynecol Oncol* 139, 338-44.

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 **M:** Mouse **R:** Rat

Trademarks and Patents

Cell Signaling Technology is a 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.