

Spartin Antibody



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

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 78	Source/Isotype: Rabbit	UniProt ID: #Q8N0X7	Entrez-Gene Id: 23111
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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

Spartin Antibody recognizes endogenous levels of total spartin protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human spartin protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Spastic paraplegia 20 (spartin) is encoded by the *SPG20* gene in humans, which is altered in some individuals with an autosomal recessive form of hereditary spastic paraplegia known as Troyer syndrome (1,2). While Troyer syndrome research studies have yet to clearly describe the subcellular localization or function of spartin, additional work implicates spartin in endosomal trafficking, microtubule dynamics, and lipid homeostasis (3-5). This multifunctional protein is ubiquitously expressed within the nervous system and in non-neuronal tissues, and displays a diverse pattern of cellular localization (6). The *SPG20* gene promoter is hypermethylated in many cases of colorectal cancer, which results in decreased spartin expression and cytokinesis arrest. This suggests that spartin expression and methylation state could be a promising biomarker for colorectal tumors (7).

Background References

1. Patel, H. et al. (2002) *Nat Genet* 31, 347-8.
2. Bakowska, J.C. et al. (2008) *Arch Neurol* 65, 520-4.
3. Edwards, T.L. et al. (2009) *Biochem J* 423, 31-9.
4. Lu, J. et al. (2006) *J Neurochem* 98, 1908-19.
5. Eastman, S.W. et al. (2009) *J Cell Biol* 184, 881-94.
6. Milewska, M. et al. (2009) *J Neurochem* 111, 1022-30.
7. Lind, G.E. et al. (2011) *Oncogene* 30, 3967-78.

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

Cross-Reactivity Key

H: Human

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