

#5345 Store at -20°C

ASCT2 (V501) Antibody


Cell Signaling
TECHNOLOGY®

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Applications: WB, IP, IF-IC, FC-FP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 49, 75	Source: Rabbit	UniProt ID: #Q15758	Entrez-Gene Id: 6510
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Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:50
1:100
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

ASCT2 (V501) Antibody detects endogenous levels of total ASCT2 protein. Species cross-reactivity for IF-IC is human only.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human ASCT2 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Sodium-dependent neutral amino acid transporter type 2 (ASCT2 or SLC1A5) is a neutral amino acid transporter that regulates the uptake of essential amino acids in conjunction with the SLC7A5 bilateral transporter (1,2). ASCT2 appears to be the major glutamine transporter in hepatoma cells and is thought to provide essential amino acids needed for tumor growth (3). Additional evidence suggests that ASCT2 plays a role in activating mTORC1 signaling and is required to suppress autophagy (4,5). Cell surface ASCT2 serves as a receptor for several mammalian interference retroviruses associated with cases of infectious immunodeficiency; variation in a small region of an extracellular loop (ECL2) may be responsible for species-specific differences in receptor function (6).

Background References

1. Utsunomiya-Tate, N. et al. (1996) *J Biol Chem* 271, 14883-90.
2. Bröer, S. (2008) *Physiol Rev* 88, 249-86.
3. Bode, B.P. et al. (2002) *Am J Physiol Gastrointest Liver Physiol* 283, G1062-73.
4. Fuchs, B.C. et al. (2007) *Am J Physiol Cell Physiol* 293, C55-63.
5. Nicklin, P. et al. (2009) *Cell* 136, 521-34.
6. Marin, M. et al. (2003) *J Virol* 77, 2936-45.

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

WB: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry)
FC-FP: Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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