

Store at
-20°C

Asparagine Synthetase Antibody



#20843

Support: +1-978-867-2388 (U.S.)
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orders@cellsignal.comEntrez-Gene ID #440
UniProt ID #P08243

rev. 10/15/19

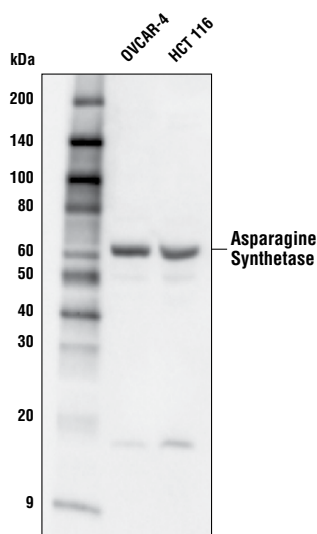
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Applications W Endogenous	Species Cross-Reactivity* H, M	Molecular Wt. 64 kDa	Source Rabbit**
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Background: Asparagine synthetase (ASNS) catalyzes the synthesis of asparagine from aspartate and glutamine. Research studies have shown that intracellular asparagine can suppress apoptosis in a large number of human tumors. In addition, the ASNS expression levels are associated with the progression of gliomas and neuroblastomas in patients (1). Furthermore, acute lymphocytic leukemia cells frequently depend upon serum asparagine for their viability, as they lack ASNS (2). Deprivation of asparagine by L-asparaginase has therefore been developed as a therapeutic treatment for acute lymphocytic leukemia (2-3). In subsets of gastric and hepatic cancers, ASNS promoter hypermethylation correlates with low ASNS expression, sensitizing these cancers to the asparaginase treatment (4).

Specificity/Sensitivity: Asparagine Synthetase Antibody recognizes endogenous levels of total asparagine synthetase protein.

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



Western blot analysis of extracts from OVCAR-4 and HCT 116 cells using Asparagine Synthetase Antibody.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

Background References:

- (1) Zhang, J. et al. (2014) *Mol Cell* 56, 205-18.
- (2) Gwinn, D.M. et al. (2018) *Cancer Cell* 33, 91-107.e6.
- (3) Loayza-Puch, F. et al. (2016) *Nature* 530, 490-4.
- (4) Li, H. et al. (2019) *Nat Med* 25, 850-60.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.