Store at -20°C

#65552

L-asparaginase/ASRGL1 Antibody

Cell Signaling TECHNOLOGY®

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Entrez-Gene ID #80150
UniProt ID #Q7L266

New 10/18

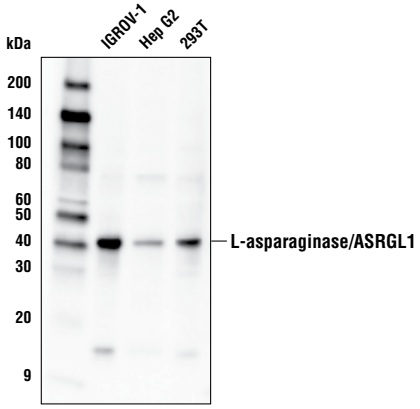
For Research Use Only. Not For Use In Diagnostic Procedures.

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H, R, Mk	41 kDa	Rabbit**

Background: L-asparaginase (ASRGL1) catalyzes the conversion of L-asparagine to L-aspartate. Research studies have shown that intracellular asparagine can suppress apoptosis in a large number of human tumors (1). In addition, acute lymphocytic leukemia cells frequently depend upon serum asparagine for their viability, as they lack asparagine synthetase (ASNS). Deprivation of asparagine by L-asparaginase has therefore been developed as a therapeutic treatment for acute lymphocytic leukemia (2-3). In *KRAS* mutant non-small cell lung carcinoma (NSCLC) cells, PI3K/Akt signaling was shown to be required for *ASNS* expression, suggesting combinatorial Akt inhibition and L-asparaginase treatment as a therapeutic strategy for NSCLC (3). Research studies on a breast cancer model have furthermore shown that restriction of asparagine can suppress cancer metastasis (4).

Specificity/Sensitivity: L-asparaginase/ASRGL1 Antibody recognizes endogenous levels of total L-asparaginase/ASRGL1 protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human L-asparaginase/ASRGL1 protein. Antibodies are purified by protein A and peptide affinity chromatography.



Western blot analysis of extracts from IGROV-1, Hep G2, and 293T cells using L-asparaginase/ASRGL1 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) Loayza-Puch, F. et al. (2016) *Nature* 530, 490-4.
(3) Gwinn, D.M. et al. (2018) *Cancer Cell* 33, 91-107.e6.
(4) Knott, S.R.V. et al. (2018) *Nature* 554, 378-81.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 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.