

**L-asparaginase/ASRGL1 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.**

<b>Applications:</b> W	<b>Reactivity:</b> H R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 41	<b>Source/Isotype:</b> Rabbit	<b>UniProt ID:</b> #Q7L266	<b>Entrez-Gene Id:</b> 80150
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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**

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.

**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).

**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.

**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 **R:** Rat **Mk:** Monkey

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