Revision 1

Store at -20C

#65552

L-asparaginase/ASRGL1 Antibody

Cell Signaling TECHNOLOGY®

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.

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

Product Usage Information

Application	Dilution
Western Blotting	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

Trademarks and Patents

Limited Uses

Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.