

Glutamine Synthetase / GLUL Antibody

Mouse Monoclonal Antibody [Clone GLUL/15131]

| Catalog No | Format | Size |
|------------------|--|--------|
| 2752-MSM27-P0 | Purified Ab with BSA and Azide at 200ug/ml | 20 ug |
| 2752-MSM27-P1 | Purified Ab with BSA and Azide at 200ug/ml | 100 ug |
| 2752-MSM27-P1ABX | Purified Ab WITHOUT BSA or Azide at 1.0mg/ml | 100 ug |

| Applications | Tested Dillution | Note |
|----------------------------|------------------|---|
| Immunohistochemistry (IHC) | 1-2ug/ml | 30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes |

Product Details

| | |
|------------------------|--|
| Clone | GLUL/15131 |
| Immunogen | Recombinant fragment (around aa 235-344) of human GLUL protein |
| Host | Mouse |
| Clonality | Monoclonal |
| Isotype / Light Chain | IgG2a / Kappa |
| Mol. Weight of Antigen | 42.06kDa |
| Cellular Localization | Cell membrane, Cytoplasm, Cytosol, Microsome, Mitochondrion |
| Species Reactivity | Human |
| Positive Control | Expressed in endothelial cells |

*Optimal dilution for a specific application should be determined.

Product Images for Glutamine Synthetase / GLUL Antibody

Specificity & Comments

Glutamine synthetase that catalyzes the ATP-dependent conversion of glutamate and ammonia to glutamine (PubMed:16267323, PubMed:30158707, PubMed:36289327). Its role depends on tissue localization: in the brain, it regulates the levels of toxic ammonia and converts neurotoxic glutamate to harmless glutamine, whereas in the liver, it is one of the enzymes responsible for the removal of ammonia (By similarity). Plays a key role in ammonium detoxification during erythropoiesis: the glutamine synthetase activity is required to remove ammonium generated by porphobilinogen deaminase (HMBS) during heme biosynthesis to prevent ammonium accumulation and oxidative stress (By similarity). Essential for proliferation of fetal skin fibroblasts (PubMed:18662667). Independently of its glutamine synthetase activity, required for endothelial cell migration during vascular development: acts by regulating membrane localization and activation of the GTPase RHOJ, possibly by promoting RHOJ palmitoylation (PubMed:30158707). May act as a palmitoyltransferase for RHOJ: able to autopalmitylate and then transfer the palmitoyl group to RHOJ (PubMed:30158707). Plays a role in ribosomal 40S subunit biogenesis (PubMed:26711351). Through the interaction with BEST2, inhibits BEST2 channel activity by affecting the gating at the aperture in the absence of intracellular L-glutamate, but sensitizes BEST2 to intracellular L-glutamate, which promotes the opening of BEST2 and thus relieves its inhibitory effect on BEST2 (PubMed:36289327).

Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

Storage and Stability

Antibody with azide - store at 2 to 8 °C. Antibody without azide - store at -20 to -80 °C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.