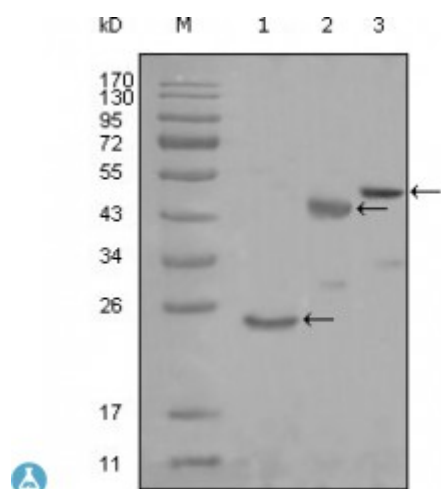


## Anti-LysRS antibody



|                         |                                                                        |
|-------------------------|------------------------------------------------------------------------|
| <b>Description</b>      | Mouse monoclonal to LysRS.                                             |
| <b>Model</b>            | STJ98227                                                               |
| <b>Host</b>             | Mouse                                                                  |
| <b>Reactivity</b>       | Human                                                                  |
| <b>Applications</b>     | ELISA, IHC, WB                                                         |
| <b>Immunogen</b>        | Purified recombinant fragment of LysRS(aa90-174) expressed in E. Coli. |
| <b>Immunogen Region</b> | 90-174 aa                                                              |
| <b>Gene ID</b>          | <a href="#">3735</a>                                                   |
| <b>Gene Symbol</b>      | <a href="#">KARS</a>                                                   |
| <b>Dilution range</b>   | WB 1:500-1:2000IHC 1:200-1:1000ELISA 1:10000                           |
| <b>Specificity</b>      | LysRS Monoclonal Antibody detects endogenous levels of LysRS protein.  |
| <b>Purification</b>     | Affinity purification                                                  |
| <b>Clone ID</b>         | 8G12C1                                                                 |
| <b>Note</b>             | For Research Use Only (RUO).                                           |
| <b>Protein Name</b>     | Lysine--tRNA ligase Lysyl-tRNA synthetase LysRS                        |
| <b>Clonality</b>        | Monoclonal                                                             |
| <b>Conjugation</b>      | Unconjugated                                                           |
| <b>Isotype</b>          | IgG1                                                                   |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Formulation</b>                | Ascitic fluid containing 0.03% sodium azide.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Storage Instruction</b>        | Store at -20°C, and avoid repeat freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Database Links</b>             | <a href="https://www.ncbi.nlm.nih.gov/condensedbook/condensedbook.cgi?HGNC:6215OMIM:601421">HGNC:6215OMIM:601421</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Alternative Names</b>          | Lysine--tRNA ligase Lysyl-tRNA synthetase LysRS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Function</b>                   | Catalyzes the specific attachment of an amino acid to its cognate tRNA in a 2 step reaction: the amino acid (AA) is first activated by ATP to form AA-AMP and then transferred to the acceptor end of the tRNA. When secreted, acts as a signaling molecule that induces immune response through the activation of monocyte/macrophages. Catalyzes the synthesis of diadenosine oligophosphate (Ap4A), a signaling molecule involved in the activation of MITF transcriptional activity. Interacts with HIV-1 virus GAG protein, facilitating the selective packaging of tRNA(3)(Lys), the primer for reverse transcription initiation. |
| <b>Sequence and Domain Family</b> | The N-terminal domain (1-65) of the cytoplasmic isoform is a functional tRNA-binding domain , is required for nuclear localization, is involved in the interaction with DARS, but has a repulsive role in the binding to EEF1A1. A central domain (208-259) is involved in homodimerization and is required for interaction with HIV-1 GAG and incorporation into virions. The C-terminal domain (452-597) is not required for interaction with AIMP2.                                                                                                                                                                                  |
| <b>Cellular Localization</b>      | Isoform Cytoplasmic: Cytoplasm. Nucleus. Cell membrane. Peripheral membrane protein. Secreted. Secretion is induced by TNF-alpha.. Isoform Mitochondrial: Mitochondrion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

---

**St John's Laboratory Ltd**

**F** +44 (0)207 681 2580  
**T** +44 (0)208 223 3081

**W** <http://www.stjohnslabs.com/>  
**E** [info@stjohnslabs.com](mailto:info@stjohnslabs.com)