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#### Product Name

Monoclonal Human anti-lysyl-tRNA synthetase Immunoglobulin

#### CAT No.

MQR 2.4001

#### LOT No.

19055

#### Quantity

100 µg

Edition: September 11, 2019

#### Intended use

This product is for research use only. NOT for use in diagnostic or therapeutic procedures.

This product is tested for use in enzyme-linked immunosorbent assay (ELISA).

#### Reagent provided

The antibody is supplied in PBS.

#### Isotype

Human IgG1κ

#### Immunogen

Lysyl-tRNA synthetase. Domain: A2-V597 of 597.

#### Specificity

Specificity has been tested in ELISA (figure 1).

#### Purity

Protein A purified.

#### Disclaimer

The antibody is for R&D use only. NOT for use in diagnostic or therapeutic procedures.

#### Precautions

1. For professional users.
2. As with any product derived from biological sources, proper handling procedures should be used.
3. The product may be used in different techniques and in combination with different sample types and materials, therefore each individual laboratory should validate the applied test system.

#### Preparation of the antibody

Use antibody as supplied.

#### Storage/Stability

Store at -20°C. After first time use, store at 4°C. Avoid repeated freeze-thaw cycles.

#### Application guidelines

ELISA: 1:1000 – 1:5000

Other applications: since applications vary, optimum working dilution of the product should be determined in the appropriate assay.

Unless the stability in the actual test system has been established, it is recommended to dilute the product immediately before use.

#### Relevance

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 the signaling molecule diadenosine tetraphosphate (Ap<sub>4</sub>A), and thereby mediates disruption of the complex between HINT1 and MITF and the concomitant activation of MITF transcriptional activity.<sup>1</sup>

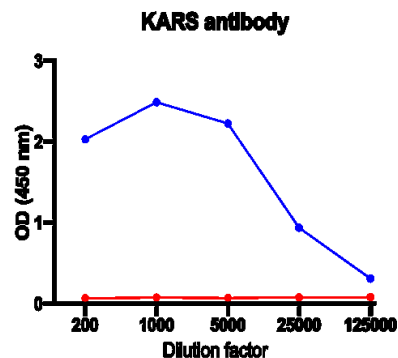


Figure 1: Specificity of anti-KARS (MQR2.4001), determined by ELISA. Antibody stock 1.04 mg/ml diluted in PBS containing 0.05% tween-20 and 1% BSA was tested on human Lysyl-tRNA synthetase (in blue) and non-target protein (in red).

#### References

- 1) <https://www.uniprot.org/uniprot/Q15046>