

ORDERING INFORMATION

Catalog Number: MAB1925

Clone: HLS56/3

Lot Number: HNL01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: human OAS2

Immunogen: purified OAS2

Ig class: mouse IgG_{2A}

Recommended Applications:
Immunocytochemistry
Immunoprecipitation

Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified 2',5'-Oligoadenylate Synthetase-2 (OAS2).¹ The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography. OAS2, also known as OAS (69kDa), is one of three related proteins (along with OAS1 and OAS3) that catalyze the conversion of ATP into 2',5'-linked adenosine oligomers with the general formula pppA(2',5'A)_n where n ≥ 1.^{2,3} These proteins are induced by interferons, activated by double-stranded RNA, and are implicated in anti-viral immunity.^{1,4,5}

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody reacts specifically with human OAS2.

Applications

Immunocytochemistry - This antibody was used at 10 µg/mL with the appropriate secondary reagents to detect OAS2 in interferon-stimulated HeLa cells. Cells were fixed with PBS containing 4% paraformaldehyde at room temperature for 20 minutes, then blocked with PBS containing 0.1% Triton X-100, 1% BSA, and 10% normal donkey serum at room temperature for 45 minutes. After blocking, cells were incubated with diluted primary antibody overnight at 4° C followed by Rhodamine Red-coupled anti-mouse IgG at room temperature in the dark for one hour. Between each step, cells were washed with PBS containing 0.1% BSA. Immunohistochemical and immunocytochemical localizations of OAS2 can also be carried out by using the alternate protocol described in reference 6.

Immunoprecipitation - This antibody was reported in reference 1 to immunoprecipitate human OAS2. This application was not tested by R&D Systems.

Optimal dilutions should be determined by each laboratory for each application.

References:

1. Hovanessian, A.G. *et al.*, 1987, EMBO J. **6**(5):1273 - 1280.
2. Hovanessian, A.G. *et al.*, 1977, Nature **268**:537 - 540.
3. Kerr, I.M. and R.E. Brown, 1978, Proc. Natl. Acad. Sci. USA **75**:256 - 260.
4. Hovanessian, A.G. *et al.*, 1988, J. Biol. Chem. **263**(10):4959 - 4969.
5. Marie, I. *et al.*, 1990, J. Interferon Res. **10**(6):571 - 578.
6. Marie, I. *et al.*, 1990, J. Biol. Chem. **265**(30):18601 - 18607.