

Product Name
Monoclonal Mouse
Anti-hRRP4 Immunoglobulin, clone 15B3

CAT No.
MQ2.103-100

Size
100 µg



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Intended use

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

Mouse monoclonal to exosome component Homo sapiens RRP4 (hRRP4), clone 15B3, is intended for use in ELISA (figure 1), immunoblotting (figure 2) or IP.

Reagent provided

The antibody has been lyophilized in a 10 mM ammonium bicarbonate buffer. Each vial contains 2 mg BSA.

Isotype
IgG1

Immunogen

Recombinant GST-hRRP4 (NCBI accession number NM_014285 REGION 3-884, expression vector pGEX-4T3), expressed in *E. coli*.

Synonyms for RRP4; p7, EXOSC2, Rrp4p

Specificity

Specificity has been tested in ELISA (figure 1). Additional tests for cross reactivity have not yet been performed.

Purity

Protein A purified.

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 test system applied.

Preparation of the antibody

Dissolve the antibody in a 100 mM Tris-HCl pH8.0 buffer, containing 0.05% sodium azide (NaN₃).

Recommended antibody concentration: 0.5 mg/ml. When dissolved at 0.5 mg/ml, the BSA concentration will be 1%.

NOTE: Be careful opening the vial since the antibody resides in a vacuum.

Storage instructions

Dissolve the antibody in and store at 2-8°C.

Dilution guidelines

ELISA: 1:(4000 x F) – 1:(6000 x F).

Immunoblotting: 1:(500 x F). Predicted molecular weight: 33 kDa.

Other applications: since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.

For the value of the multiplication factor F, see label on vial.

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

Relevance

The exosome, present in both the nucleus and cytoplasm of all eukaryotic cells, is a complex of 3'-5' exoribonucleases containing at least nine core components. Recently, it has been demonstrated, mainly by analyses in yeast, that the nuclear exosome is essential for rRNA processing and sn(0)RNA biogenesis. Furthermore, it is involved in the degradation of improperly processed mRNAs. The cytoplasmic exosome participates in normal mRNA turnover and in the degradation of inherently instable mRNAs that contain AU-rich elements. Therefore, the exosome plays a key role in RNA metabolism.

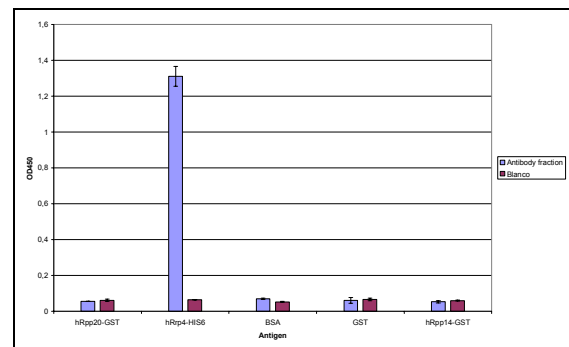


Figure 1: Specificity of anti-hRRP4 Immunoglobulin, clone 15B3, determined by ELISA. Antibody fraction (0.5 mg/ml) 6000X diluted in MPBST (137 mM NaCl, 2.7 mM KCl, 1.5 mM KH₂PO₄, 8.1 mM Na₂HPO₄, 0.05% v/v Tween-20 (Merck), 5% m/v Non Fat Dry Milk (ELK)). Antibody was tested on various recombinant protein substrates i.e. hRpp14-GST (pGEX-2T), hRpp46-HIS10 (pET16b), GST (pGEX-2T) and BSA, 98% (Sigma).

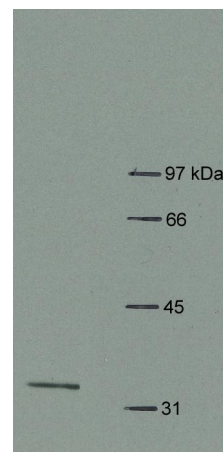


Figure 2: Immunoblot, containing total cell extract of HEp2 cells, incubated with antibody fraction (0.5 mg/ml in 100 mM Tris-HCl, pH 8.0 with 1% BSA) 500X diluted in MPBST.

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References

1. Rajimakers et al. The exosome, a molecular machine for controlled RNA degradation in both nucleus and cytoplasm. Eur J Cell Biol. 2004 Jul;83(5):175-83.

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