Product Name

Monoclonal Mouse Anti-hRPP20 Immunoglobulin, clone 1F11

CAT No.

MQ 1.201-100

LOT No.

TD1.201-0410-06

Quantity

100 µg

Edition: February 5, 2014

Intended use

This product is for research use only. <u>NOT for use in</u> diagnostic or therapeutic procedures.

This product is tested for use in enzyme-linked immunosorbent assay (ELISA), immunoblotting (IB), immunoprecipitation (IP) or immunofluorescent antibody analysis (IFA)

Reagent provided

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

Isotype

Mouse IgG2a

Immunogen

Recombinant GST-hRPP20 (NCBI accession number AAC24113, expression vector pGEX-2T), expressed in *E.coli*.

Specificity

Specificity has been tested in ELISA (figure 1). In immunoblotting, under less stringent washing conditions, a weaker band of approximately 60 kDa is also detected (figure 2, right panel). Additional tests for cross reactivity have not yet been performed.

Purity

Protein A purified.

Precautions

- For professional users.
- As with any product derived from biological sources, proper handling procedures should be used.
- 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

- Recommended antibody concentration: 0.5 mg/ml (when dissolved at 0.5 mg/ml, the BSA concentration will he 1%).
- Recommended solvent; 100 mM PBS or Tris-HCl, pH 7.0
- Additional sodium azide (up to 0.05%) is recommended for long term storage.
- For a 0.5 mg/ml antibody concentration in 1% BSA, dissolve in 200 μl buffer.

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

Storage instructions

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



Dilution guidelines

ELISA: $1:(4000 \times F) - 1:(6000 \times F)$.

IB: 1:(500 x F) predicted molecular weight: 20 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 nuclei of eukaryotic cells contain several classes of small RNA-protein complexes. SnRNPs (small nuclear ribonucleoproteins) are involved in splicing of pre-mRNAs (the excision of introns) in the nucleoplasm. RPP20 is part of such a complex. SnoRNPs (small nucleolar ribonucleoproteins) are involved in the maturation of pre-ribosomal RNA in the nucleoli. Pre-rRNA processing and modification require both the snoRNA and the protein constituents (such as Rpp20) of these complexes. Generally, snoRNPs contain a number of common proteins, which are shared with other snoRNPs of the same family, next to several particle-specific proteins. On average, snoRNPs contain about 6-10 protein subunits.

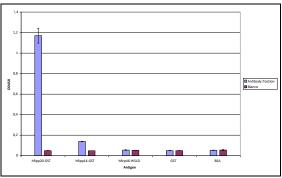


Figure 1: Specificity of anti-hRPP20 Immunoglobulin, clone 1F11, determined by ELISA. Antibody fraction (0.5 mg/ml) 6000X diluted in PBS containing 0.05% tween-20 and 5% non fat dry milk. Antibody was tested on various recombinant protein substrates i.e. hRpp14-GST (pGEX-2T), hRrp46-HIS10 (pET16b), GST (pGEX-2T) and BSA, 98% (Sigma).

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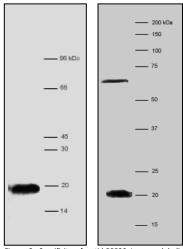


Figure 2: Specificity of anti-hRPP20 Immunoglobulin, clone 1F11, determined by immunoblot analysis. Blot contains total cell extract of HEp2 cells. Incubated with antibody fraction (0.5 mg/ml) diluted 500X in PBS containing 0.05% tween-20 and 5% non fat dry milk. Left: washing under stringent conditions. Right: washing under less stringent conditions.

References

- Welting et al. Autoantigenicity of nucleolar complexes. Autoimmun Rev. 2003 Oct;2(6):313-21.
- Van Eenennaam et al. Architecture and function of the human endonucleases RNase P and RNase MRP. IUBMB Life. 2000 Apr;49(4):265-72.
- Welting et al. Mutual interactions between subunits of the human RNase MRP ribonucleoprotein complex. Nucleic Acids Res. 2004 Apr 19;32(7):2138-46. Print 2004.

