### References:

- 1. Renstrom A, Larsson PH, Malmberg P, Bayard C. A new amplified monoclonal rat allergen assay used for evaluation of ventilation improvements in animal rooms. J Allergy Clin Immunol. 1997 Nov;100(5):649-55.
- Renstrom A, Gordon S, Larsson PH, Tee RD, Newman Taylor AJ, Malmberg P. Comparison of a radioallergosorbent (RAST) inhibition method and a monoclonal enzyme linked immunosorbent assay (ELISA) for aeroallergen measurement. Clin Exp Allergy. 1997 Nov;27(11):1314-21.



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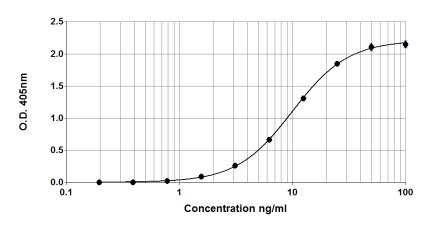
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# Rat n 1 ELISA kit (RUP-6/RUP-1)

Product Code: EL-RN1
Lot Number: XXXXX

Sample Curve:



### Content:

Vial 1 (red top) 100 μL Monoclonal antibody RUP-6

Vial 2 (white top) 400 µL
Universal Allergen Standard
Concentration: 1000ng/ml Rat n 1

Vial 3 (brown) 100 μL

Biotinylated monoclonal antibody RUP-1

Dilute: 1:1000 for use

Storage: The ELISA kit should be stored at 4°C

For research and commercial use in vitro: not for human in vivo or therapeutic use.

An InBio<sup>™</sup> product

# **Certificate of Analysis**

Monoclonal Antibody: RUP-6 Immunogen: Rat n 1 Isotype: Mouse IgG1

Specificity: Binds to an epitope on rat *Rattus norvegicus* urinary

allergen. Rat n 1.

Purification: Produced in cell culture and purified by affinity

chromatography using Protein G.

Concentration: 1.0mg/ml in phosphate buffered saline. Based on A280 for

IgG (1.42= 1mg/ml) 0.22µm filtered, 0.02% sodium azide.

Lot Number: xxxxx

Monoclonal Antibody: RUP-1 Immunogen: Rat n 1 Isotype: Mouse IgG1

Specificity: Binds to an epitope on rat *Rattus norvegicus* urinary

allergen, Rat n 1.

Purification: Produced in cell culture and purified by affinity

chromatography using Protein G.

Concentration: 1.0mg/ml in phosphate buffered saline. Based on A280 for

IgG (1.42= 1mg/ml) 0.22µm filtered, 0.02% sodium azide.

Biotinylation: Biotinylated and titrated for use in ELISA at 1/1000

dilution.

Lot Number: xxxxx

Allergen Standard: Universal Allergen Standard

Composition: A formulation of eight purified natural allergens prepared

in 1% BSA/50% glycerol/PBS, pH 7.4

Lot Number: xxxxx

### Concentration:

Universal Allergen Standard	Protein Measurement	Concentration (ng/ml)
Der p 1	Amino-acid analysis	2500
Der f 1	Amino-acid analysis	2500
Der p 2	Amino-acid analysis	1000
Fel d 1	Amino-acid analysis	1000
Can f 1	Amino-acid analysis	2500
Rat n 1	Amino-acid analysis	1000
Mus m 1	Amino-acid analysis	250
Bla g 2	Amino-acid analysis	2500

## ELISA Protocol for Rat n 1.

- Coat polystyrene microtiter plates (NUNC Maxisorp Cert. NUNC catalog # 439454) with 100μl mAb RUP-6 at 10μl/10ml, i.e. 1/1000 dilution of stock, in 50mM carbonate-bicarbonate buffer, pH 9.6, incubate overnight at 4°C.
- Wash wells 3x with PBS-0.05% Tween 20, pH 7.4 (PBS-T). Incubate for 30 min. at room temperature with 100μl/well of 1% BSA, PBS-T. Wash 3x with PBS-T.
- 3. Use doubling dilutions of the Universal Allergen Standard to make a control curve ranging from 100 0.2ng/ml Rat n 1: Pipette 20µl UAS into 180µl 1% BSA, PBS-T into wells A1 and B1 on the ELISA plate. Mix well and transfer 100µl across the plate into 100µl 1% BSA, PBS-T diluent to make 10 serial doubling dilutions. Wells A11, B11 and A12, B12 should contain only 1% BSA, PBS-T as blanks.
- 4. Add 100µl of diluted allergen samples and incubate for 1 hour at room temperature. House dust extracts for Rat n 1 analysis are routinely diluted two-fold from1/10-1/80. Other sample types, like air filter extracts and allergen extracts, may require different dilutions.
- 5. Wash wells 3x with PBS-T and add 100µl diluted biotinylated anti-Rat n 1 mAb RUP-1. The antibody solution should be diluted 1/1000 in 1% BSA, PBS-T. Incubate for 1 hour at room temperature.
- 6. Wash wells 3x with PBS-T and add 100µl diluted Streptavidin-Peroxidase (Sigma S5512, 0.25mg reconstituted in 1ml distilled water). The reconstituted Streptavidin should be diluted 1/1000 in 1% BSA, PBS-T. Incubate for 30 minutes at room temperature.
- 7. Wash wells 3x and develop the assays by adding  $100\mu l$  1mM ABTS in 70mM citrate phosphate buffer, pH 4.2 and 1/1000 dilution of  $H_2O_2$ . Read the plate when the absorbance at 405nm reaches 2.0-2.4.

#### Notes:

Universal Allergen Standard is recommended for immunoassay calibration purposes only. Not recommended for in-vitro antibody measurements, T cell studies, immunization purposes, or other uses.

Buffer recipes, storage conditions and a list of frequently asked questions can be found under "Protocols" on our web site: www.inbio.com.

For research and commercial use in vitro: not for human in vivo or therapeutic use.