



Recombinant allergen Can f 1 for *Canis familiaris* (dog)

CATALOG NUMBER: RAL0016

LOT NUMBER: #

RECOMBINANT ALLERGEN: Can f 1 is the major allergen of *Canis familiaris* (Schou *et al.*, 1991).

DESCRIPTION: the *Canis familiaris* lipocalin Can f 1 has been prepared as the recombinant mature protein fused to a his-tag.

PRESENTATION: liquid protein solution

SOURCE: *Escherichia coli*

MOLECULAR WEIGHT: determined by SDS-PAGE, the protein band is between molecular markers of 35,000 and 25,000 Da, while relative molecular mass calculated from amino acid sequence is 24,904.9 Da.

BATCH COMPOSITION:

COMPONENTS	COMPOSITION
his-Can f 1	recombinant allergen with a his-tag
Storage buffer	50 mM HEPES buffer pH 8 and 0.1 M KCl

QUALITY CONTROL:

1. PROTEIN CONCENTRATION DETERMINED ESPECTROPHOTOMETRICALLY

$DO_{280} = 0.847$
 $A_{0.1\%} (=1 \text{ g/l}) = 0.59$
 CONCENTRATION*: 1.43 mg/ml

* The measurement of the protein concentration has been performed with the theoretical extinction coefficient of the recombinant protein obtained from Gill and vonHippel, 1989

2. PURITY CONTROL IN SDS-PAGE: 15%

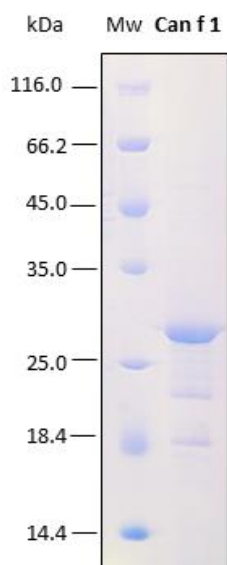


Figure 1. SDS-PAGE analysis (15%) of 3 μ l of recombinant allergen. Purity is >95% as determined by gel electrophoresis.

3. ANALYSIS BY AN ELISA ASSAY

The evaluation of the recombinant allergen has been evaluated in an external study carried out at a Spanish hospital by a group of allergists with positive and negative serum samples from patients. The evaluation of the recombinant allergens has been performed by means of an in-house ELISA assay. In this immunoassay, it has been determined the presence of specific IgE in sera that had previously been validated by skin prick testing (SPT) and the UniCAP® test. The sera panel for this study was composed of 25 positive and 10 negative specimen sera.

The recombinant allergen Can f 1 detected 21 positive sera out of 25 (84% incidence) with higher prevalence of sera with titers of 0.70-3.5 IU/ml (international units per milliliter; 1 IU is equivalent to 2.42 ng of IgE).

4. ABSENCE OF PRECIPITATION AFTER A FREEZING AND THAWING CYCLE: ok

LOT SPECIFICATIONS:

- 1. CONCENTRATION:** 1.43 mg/ml
- 2. TOTAL QUANTITY PER ALIQUOT:** 1 mg
- 3. TOTAL VOLUME PER ALIQUOT:** 0.733 ml
- 4. STORAGE:** Protein is shipped with dry ice. Upon arrival, it should be aliquoted in order to avoid repeated freezing and thawing cycles and stored at -20°C to -80°C.

5. OBSERVATIONS: proteins should be maintained frozen at high concentrations. In order to defrost the protein, maintain the aliquot at 25°C without shaking to avoid aggregation. Prior making test dilutions and after defrosting the protein, is recommended to remove possible protein aggregates by centrifuging the stock solution, avoiding alterations in the immobilization of the biomolecule to the solid surface.

RELATED PRODUCTS:

Can f 5.

BIBLIOGRAPHY:

Schou, C., Scendsen, U. G. and Løwenstein, H. Purification and characterization of the major dog allergen, Can f 1. 1991, *Clin. Exp. Allergy* 21:321-8.

Gill SC, von Hippel PH. Calculation of protein extinction coefficients from amino acid sequence data. *Anal Biochem.* 1989 Nov 1;182(2):319-26.



Important Notes: During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 μ l or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the containers cap.

Although recombinant antigens are expressed in non-pathogenic *E. coli* and bacterial integrity is destroyed during purification, the antigen preparation should be handled as potentially infectious.

NOT FOR DIAGNOSTIC USE, FOR RESEARCH USE ONLY

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