

Recombinant allergen Alt a 1 for *Alternaria alternata* (Alternaria plant rot fungus)

CATALOG NUMBER: RAL0025

LOT NUMBER: #

RECOMBINANT ALLERGEN: Alt a 1 is the major allergen of *Alternaria alternata* (De Vouge *et al.*, 1996).

DESCRIPTION: the *Alternaria alternata* Alt a 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 23,059.37Da.

BATCH COMPOSITION:

COMPONENTS	COMPOSITION
his-Alt a 1	recombinant allergen with a his-tag
Storage buffer	20 mM phosphate buffer pH 8, 0.1 M KCl and 0.1% polyoxyethylene (10) tridecyl ether

QUALITY CONTROL:

1. PROTEIN CONCENTRATION DETERMINED ESPECTROPHOTOMETRICALLY

DO₂₈₀ = 1.11
 $A_{0.1\%}$ (=1 g/l) = 1.005
 CONCENTRATION*: 1.104 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%

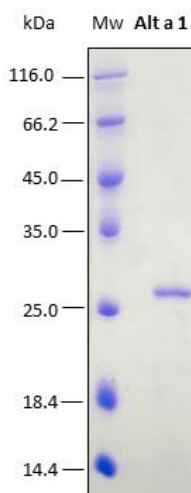


Figure 1. SDS-PAGE analysis (15%) of 2 µl of recombinant allergen Alt a 1. Purity is >95% as determined by gel electrophoresis.

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

LOT SPECIFICATIONS:

- 1. CONCENTRATION:** 1.104 mg/ml
- 2. TOTAL QUANTITY PER ALIQUOT:** 1 mg
- 3. TOTAL VOLUME PER ALIQUOT:** 0.95 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:

None.

BIBLIOGRAPHY:

De Vouge, M. W., Thaker, A. J., Curran I. H., Zhang, L., Muradia, G., Rode, H. and Vijay, H. M. Isolation and expression of a cDNA clone encoding an *Alternaria alternata* Alt a 1 subunit. 1996, *Int. Arch. Allergy. Immunol.* 111:385-95.

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 µl 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.

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