

## Recombinant antigen domain III from envelope protein (EDENV4) for dengue virus serotype 4.

**CATALOG NUMBER:** RAG0070

**LOT NUMBER:** #

**RECOMBINANT ANTIGEN:** envelope protein domain III or B domain for dengue virus serotype 4 (Ludolfs *et al.*, 2002).

**DESCRIPTION:** the recombinant antigen EDENV4 is formed by a highly dengue virus type-specific antigenic side, the B domain or domain III, from glycoprotein E of dengue virus serotype 4.

**PRESENTATION:** liquid protein solution

**SOURCE:** *Pichia pastoris*

**MOLECULAR WEIGHT:** determined by SDS-PAGE, the protein band is between molecular markers of 18,400-14,000 Da, while relative molecular mass calculated from amino acid sequence is 14,614.41 Da.

**BATCH COMPOSITION:**

COMPONENTS	COMPOSITION
his-EDENV4	recombinant antigen with a his-tag in its C-terminus
Storage buffer	20 mM phosphate buffer pH 7, 0.15 M NaCl, 0.25 M trehalose and 0.1% polyoxyethylene (10) tridecyl ether

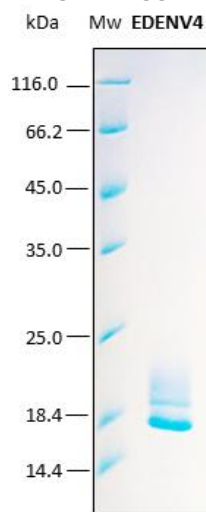
**QUALITY CONTROL:**

**1. PROTEIN CONCENTRATION DETERMINED ESPECTROPHOTOMETRICALLY**

DO<sub>280</sub> = 0.976  
 A<sub>0.1%</sub> (=1 g/l) = 0.793  
 CONCENTRATION\*: 1.23 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 10 µl of recombinant EDENV4. Purity is > 95% as determined by gel electrophoresis.

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

**LOT SPECIFICATIONS:**

- 1. CONCENTRATION:** 1.23 mg/ml
- 2. TOTAL QUANTITY PER ALIQUOT:** 1 mg
- 3. TOTAL VOLUME PER ALIQUOT:** 0.853 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. APPLICATIONS:** not tested. Where this product has not been tested for use in a particular technique, this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates.
- 6. OBSERVATIONS:** proteins should be maintained frozen at high concentrations. The dilution to be performed for ELISA assays should be made with a small quantity of protein, the same day of the experiment. 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:**

EDENV1, EDENV2, EDENV3.

**BIBLIOGRAPHY:**

- Ludolfs, D., Schilling, S., Altenschmidt, J., and H. Schmitz.** Serological Differentiation of Infections with Dengue Virus Serotypes 1 to 4 by Using Recombinant Antigens. 2002. *Journal of Clinical Microbiology*, p. 4317-4320
- 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  $\mu$ 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 *P. pastoris* and bacterial integrity is destroyed during purification, the antigen preparation should be handled as potentially infectious.

**FOR RESEARCH AND COMMERCIAL USE *IN VITRO*: not for human *in vivo* or therapeutic use.**