Recombinant *R. sanguineus* Evasin-3 His-tag

Catalog Number: 10034-EV

DESCRIPTION

Source	*Spodoptera frugiperda*, *Sf* 21 (baculovirus)-derived *r. sanguineus* Evasin-3 protein Leu21-Arg86. with a C-terminal 6-His tag Accession # P0C8E8
N-terminal Sequence Analysis	Leu21
Predicted Molecular Mass	7.8 kDa

SPECIFICATIONS

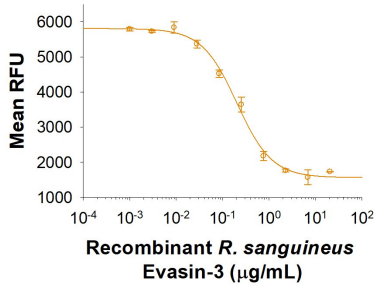
SDS-PAGE	8-17 kDa, reducing conditions
Activity	Measured by its ability to inhibit CXCL8-induced chemotaxis of BaF3 mouse pro-B cells transfected with human CXCR2. The ED_{50} for this effect is 0.15-0.9 µg/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	• 12 months from date of receipt, ≤ -20 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, ≤ -20 °C under sterile conditions after reconstitution.

DATA

Bioactivity



Recombinant R. sanguineus Evasin-3 (Catalog # 10034-EV) inhibits IL-8/CXCL8-induced chemotaxis of BaF3 mouse pro-B cells transfected with human CCXR2. The ED_{50} for this effect is 0.15-0.9 µg/mL.

BACKGROUND

Evasin-3 is a highly selective chemokine-binding protein isolated from tick saliva. The cDNA of tick Evasin-3 encodes an 86 amino acid (aa) precursor, which includes a 20 aa signal peptide and a 66 aa mature protein (1). Ticks are blood sucking parasites that secrete a wide variety of immunomodulatory proteins to evade the host immune response. The saliva isolated from Ticks has shown to contain chemokine neutralization activity. These proteins have been identified as chemokine binding proteins (CHPBs) that were termed as Evasins (1,2.3). Evasin-3 belongs to a new class of chemokine binding proteins in that it shows high affinity binding to a very limited set of chemokines, including CXCL8 and CXCL1. Since it is very small molecule Evasin-3 may be therapeutically useful as novel anti-inflammatory agent.

References:

1. Frauenschuh, A. *et al.* (2007) J. Biol. Chem. **282**:27250.
2. Deruaz, M. *et al.* (2008) J. Exp. Med. **205**:2019.
3. Deruaz, M. *et al.* (2013) FEBS J. **280**:4876.

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