

NAP-2/CXCL7,Rat

Cat. No.: Z03302-1

Size: 1.0 mg

Synonyms: CXCL7,NAP-2

Description:

Rat NAP-2/CXCL7 is a small cytokine belonging to the CXC chemokine family. It is an isoform of Beta-Thromboglobulin or Pro-Platelet basic protein (PPBP). Similar to other ELR domain containing CXC chemokines such as IL-8 and the GRO proteins, NAP-2 has been shown to bind CXCR-2 and recruit and activate ateneutrophils through chemotaxis. Although CTAP-III, β -TG and PBP represent amino-terminal extended variants of NAP-2 and possess the same CXC chemokine domains, these proteins do not exhibit NAP-2 activity. NAP-2 stimulates various processes including mitogenesis, synthesis of the extracellular matrix, glucose metabolism and synthesis of plasminogen activator. Recently, it has been shown that the additional amino-terminal residues of CTAP-III mask the critical ELR receptor binding domain that is exposed on NAP-2 and may account for lack of NAP-2 activity.

Recombinant Rat NAP-2 /CXCL7 produced in *E.coli* is a single non-glycosylated polypeptide chain containing 62 amino acids. A fully biologically active molecule, rrNAP-2/CXCL7 has a molecular mass of 6.9 kD analyzed by reducing SDS-PAGE and is ob-

tained by chromatographic techniques at GenScript.

Source: *E. coli*

Biological Activity: The EC₅₀ value of Rat NAP-2/CXCL7 on Ca²⁺ mobilization assay in CHO-K1/G α 15/rCXCR2 cells (human G α 15 and Rat CXCR2 stably expressed in CHO-K1 cells) is less than 200 ng/ml.

Molecular Weight: 6.9 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Purity: > 95% as analyzed by SDS-PAGE.

Endotoxin Level: < 0.2 EU/ μ g, determined by LAL method.

Storage: Lyophilized recombinant Rat NAP-2/CXCL7 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Rat NAP-2/CXCL7 should be stable up to 1 week at 4°C or up to 3 months at -20°C.