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PA1171 OriGene EU

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Recombinant Human Neutrophil Activating Protein-2 (CXCL7)

Alternate names:	CXCL7, NAP2
Catalog No.:	PA1171
Quantity:	2 µg
Concentration:	1.0 mg/ml
Species:	Human
Source:	E. coli, E.coli
Format:	 State: Sterile Filtered White lyophilized (freeze-dried) powder. Purity: >98% Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Anion-exchange FPLC. (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained. Buffer System: Recombinant Neutrophil-activating peptide 2, lyophilized from a concentrated solution in water containing no additives. Endotoxin Level: Less than 0.1 ng/µg (IEU/µg) of NAP-2. Dimers: Less than 1% as determined by silver-stained SDS-PAGE gel analysis. Reconstitution: It is recommended to reconstitute the lyophilized NAP-2 in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.
Description:	 Recombinant Human NAP-2 produced in E.Coli is a non-glycosylated, Polypeptide chain containing 70 amino acids. Recombinant NAP-2 is purified by proprietary chromatographic techniques. AA Sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Glu-Leu-Arg-Cys. Biological Activity: NAP-2 is fully biologically active when compared to standard. The specific activity as determined by the ability of NAP-2 to chemoattract human neurotrophils using a concentration of 1-10 ng/ml. Molecular weight: 7609 Dalton. Molecular weight: 8 kDa
Add. Information:	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm . 2. Analysis by RP-HPLC, using a standard solution of NAP-2 as a Reference Standard.
Storage:	Lyophilized NAP-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution NAP-2 should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please avoid freeze-thaw cycles.

For research and in vitro use only. Not for diagnostic or therapeutic work. Material Safety Datasheets are available at www.acris-antibodies.com or on request.



OG/20130615

Acris Antibodies is now part of the OriGene family. Learn more at www.origene.com



General Readings:

1. Rennen HJ, Frielink C, Brandt E, Zaat SA, Boerman OC, Oyen WJ, et al. Relationship between neutrophil-binding affinity and suitability for infection imaging: comparison of (99m)Tc-labeled NAP-2 (CXCL-7) and 3 C-terminally truncated isoforms. J Nucl Med. 2004 Jul;45(7):1217-23. PubMed PMID: 15235069.

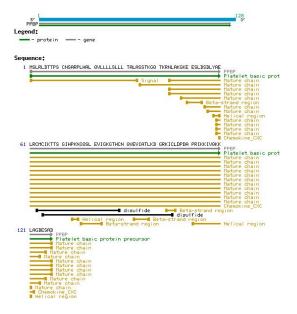
2. Malawista SE, Van Damme J, Smallwood JI, de Boisfleury Chevance A. Chemotactic activity of human blood leukocytes in plasma treated with EDTA: chemoattraction of neutrophils about monocytes is mediated by the generation of NAP-2. J Leukoc Biol. 2002 Jul;72(1):175-82. PubMed PMID: 12101278.

3. Schwartzkopff F, Brandt E, Petersen F, Flad HD, Bock L, Ludwig A. The CXC chemokine NAP-2 mediates differential heterologous desensitization of neutrophil effector functions elicited by platelet-activating factor. J Interferon Cytokine Res. 2002 Feb;22(2):257-67. PubMed PMID: 11911809.

4. Piccardoni P, Evangelista V, Piccoli A, de Gaetano G, Walz A, Cerletti C. Thrombinactivated human platelets release two NAP-2 variants that stimulate polymorphonuclear leukocytes. Thromb Haemost. 1996 Nov;76(5):780-5. PubMed PMID: 8950790. 5. Ehlert JE, Petersen F, Kubbutat MH, Gerdes J, Flad HD, Brandt E. Limited and defined truncation at the C terminus enhances receptor binding and degranulation activity of the neutrophil-activating peptide 2 (NAP-2). Comparison of native and recombinant NAP-2 variants. J Biol Chem. 1995 Mar 17;270(11):6338-44. PubMed PMID: 7890771.

6. Besemer J. Neutrophil-activating peptides NAP-2 and IL-8 bind to the same sites on neutrophils but interact in different ways. Discrepancies in binding affinities, receptor densities, and biological effects. J Immunol. 1995 Jan 15;154(2):972-4. PubMed PMID: 7814896.

Pictures: Precursor- Protein structure and amino acid sequence: PA1171ME0607



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