

Platelet Factor 4 (PF4) – mouse, recombinant

[PF4-mr]

Properties*

Product #	[PF4-mr]
Species	mouse
Source	<i>Escherichia coli</i>
Mol wt	8.0 kDa
UniProt #	Q9Z126
Purity	> 95% as determined by SDS-PAGE (silver staining)
AA sequence	MGPEESDGDLSVCVKTISGGIHLKHITSLEVIKAGR HCAVPQLIATLKNRGRKICLDRQAPLYKKVIKKILES
Product sizes	50 µg, 100 µg, 200 µg (different sizes are available on request)
Quality control	SDS-Page, Western Blot, N-terminal sequencing and MALDI-TOF-MS
Physical form	Lyophilized in PBS (0.22 µm filtered), carrier free (different buffers are available on request)
Reconstitution	Reconstitute carefully in <i>A. dest.</i> (1µl/µg PF4). Adjust the protein concentration with PBS. Do not vortex.
Shipping	Ambient temperature
Storage	Store dark in working aliquots at -20°C to -80°C. Avoid repeated freezing and thawing.
Stability	Lyophilisate is stable for at least 12 month at -20°C.

Description

Platelet Factor 4 (PF4; also known as CXCL4) is synthesized in megakaryocytes and platelets. PF4 is biologically active in the tetrameric form, promotes blood coagulation and is also important in wound healing and inflammation. PF4, together with heparin (PF4-heparin complex) is an important antigen of antibodies inducing heparin-induced thrombocytopenia (HIT) in humans. Mouse (murine) PF4 shares 64% sequence identity with human PF4.

*Please note that the properties of this product (structure, antigenicity, function etc.) may alter under different experimental conditions. If changes (buffers, pH etc.) are made, the responsibility is transferred from the seller to the customer. The material is neither intended or tested for clinical tests nor certified for human use.



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[PF4-mr]

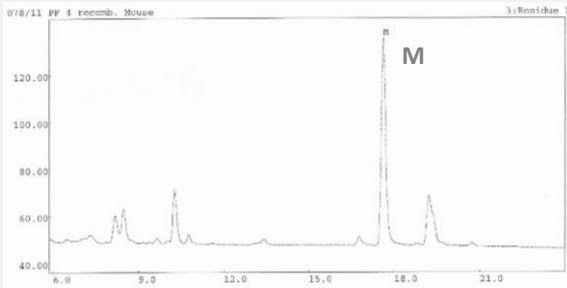
Sequence Alignment (Clustal Omega)

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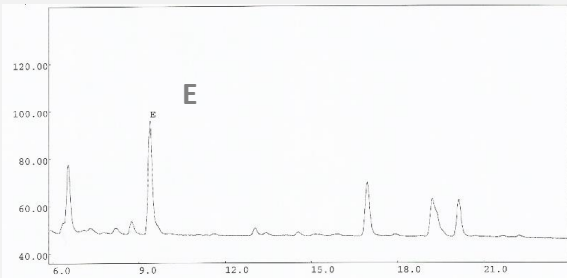
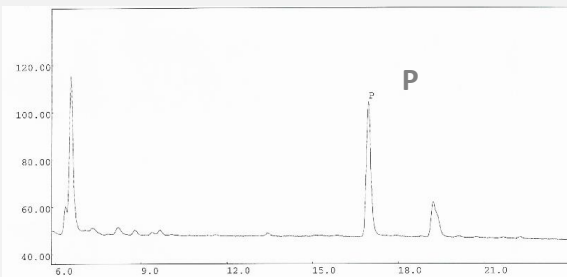
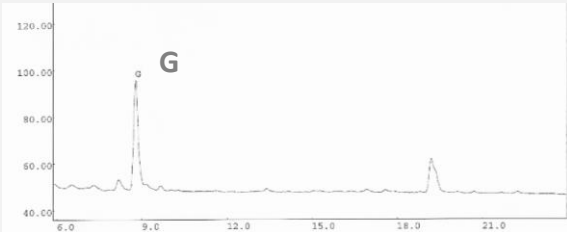
ChromaTec/PF4-mr  ---MGPEESDGDLSVCVKTISSGIHLKHITSLEVIKAGRHC AVPQLIATLKNGRKICLDRQAPLYKKVIKKILES
mouse PF4        VTSAGPEESDGDLSVCVKTISSGIHLKHITSLEVIKAGRHC AVPQLIATLKNGRKICLDRQAPLYKKVIKKILES
human PF4        -----EA EEDGDLQCLCVKTT S-QV RPHITSLEVIKAGPHCPTAQLIATLKNGRKICLDRQAPLYKKI IKKLLES
* .*****.*:**** *  : :***** ** . ********** *****:***:***
    
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N-terminal sequencing: PF4-mr

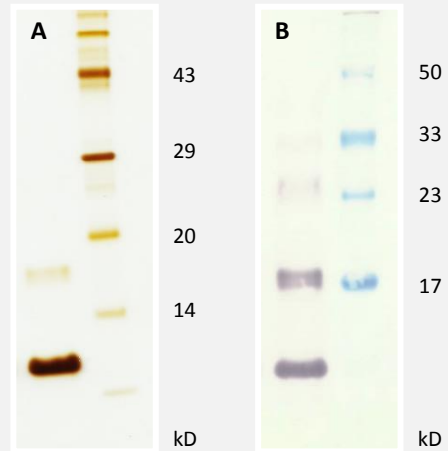
**MGPEESDGDLSVCVKTISSGIHLKHITSLEVIKAGR
HCAVPQLIATLKNGRKICLDRQAPLYKKVIKKILES**



Peak No	RT	Peak ID	Type	Height	Peak Ht.
34	17.60	M		732438	31.17



SDS-Page & Western Blot: PF4-mr



A) SDS-Page (15% PAA, silver staining) and B) Western Blot of 1 µg PF4-mr: A) Recombinant mouse PF4 (PF4-mr) appears as a monomer and a slight dimer band under denaturing conditions. B) Monomeric PF4-mr and its multimers were detected using PF4 antibodies (Antibodies-Online, # ABIN 1078451) and alkaline phosphatase conjugated secondary antibodies.

Publications referencing this product:

Schulze A, Jensch I, Krauel K, et al. New insights in heparin-induced thrombocytopenia by the use of fluid-phase assays to detect specifically platelet factor 4/heparin complex antibodies and antibody-secreting cells. *Thrombosis research.* 2014;134(1):174–81.

Jaax ME, Krauel K, Marschall T, et al. Complex formation with nucleic acids and aptamers alters the antigenic properties of platelet factor 4. *Blood.* 2013;122(2):272–81.

Krauel K, Pötschke C, Weber C, et al. Platelet factor 4 binds to bacteria, inducing antibodies cross-reacting with the major antigen in heparin-induced thrombocytopenia. *Blood.* 2011;117(4):1370–8.

