



RayBiotech, Inc.

3607 Parkway Lane suite 200
Norcross, GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet Recombinant Human FK506 Binding Protein 4

Catalog No.
228-10477

Source:
Escherichia Coli.

Synonyms

HBI, p52, Hsp56, FKBP52, FKBP59, PPIase, FKBP4, FK506-binding protein 4, Peptidyl-prolyl cis-trans isomerase, HSP-binding immunophilin, FKBP52 protein, 52 kDa FK506-binding protein, p59 protein.

Introduction

FKBP4 is part of the immunophilin protein family, which takes part in immunoregulation and necessary cellular processes concerning protein folding and trafficking. FKBP4 is a cis-trans prolyl isomerase that connects to the immunosuppressants FK506 and rapamycin. FKBP4 has high structural and functional similarity to FKBP1A, though, FKBP4 does not have immunosuppressant activity when complexed with FK506. FKBP4 interacts with interferon regulatory factor-4 and is involved in immunoregulatory gene expression in B and T lymphocytes. FKBP4 is known to connect with phytanoyl-CoA alpha-hydroxylase. FKBP4 associates with HSP90 & HSP70 thus takes part in the intracellular trafficking of hetero-oligomeric forms of the steroid hormone receptors. FKBP4 highly associates with adeno-associated virus type 2 vectors (AAV) resulting in a considerable increase in AAV-mediated transgene expression in human cell lines. FKBP4 is involved in the optimal use of AAV vectors in human gene therapy.

Description

FKBP4 produced in E.coli is a single, non-glycosylated polypeptide chain containing 479 amino acids (1-459 a.a.) and having a molecular mass of 53.9 kDa.

FKBP4 is fused to 20 amino acid His Tag at N-terminus and purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered colorless solution.

Formulation

The FKBP4 protein solution contains 20mM Tris-HCl, pH-8 and 10% glycerol.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Stability

Store at 4°C if entire vial will be used within 2-4 weeks.

Store, frozen at -20°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Avoid multiple freeze-thaw cycles.

Biological activity

Specific activity is > 60 nmoles/min/ug, and is defined as the amount of enzyme that cleave 1umole of suc-AAFP-pNA per minute at 1C in Tris-Hcl pH8.0 using chymotrypsin.

Amino Acid Sequence

MGSSHHHHHH	SSGLVPRGSH	MTAEEMKATE	SGAQSAPLPM	EGVDISPKQD
EGVLKVIKRE	GTGTEMPMIG	DRVFVHYTGW	LLDGTKFDSS	LDRKDKFSFD
LGKGEVIKAW	DIAIATMKVG	EVCHITCKPE	YAYGSAGSPP	KIPPNATLVF
EVELFEFKGE	DLTEEDGGI	IRRIQTRGEG	YAKPNEGAIIV	EVALEGYYKD
KLFDQRELRF	EIGEGENLDL	PYGLERAIQR	MEKGEHSIVY	LKPSYAFGSV
GKEKFQIPPN	AELKYELHLK	SFEKAKESWE	MNSEEKLEQS	TIVKERGTVY
FKEGKYKQAL	LQYKKIVSWL	EYESSFSNEE	AQKAQALRLA	SHLNLAMCHL
KLQAFSAAIE	SCNKALELDS	NNEKGLFRRG	EAHLAVNDFE	LARADFQKVL
QLYPNNKAAK	TQLAVCQQRI	RRQLAREKKL	YANMFERLAE	EENKAKAEAS
SGDHPTDTEM	KEEQKSNTAG	SQSQVETEA.		

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