

Datasheet for ABIN3113732

CX3CR1 Protein (AA 1-355) (Strep Tag)[Go to Product page](#)**1** Image

Overview

Quantity:	1 mg
Target:	CX3CR1
Protein Characteristics:	AA 1-355
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CX3CR1 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence: MDQFPESVTE NFEYDDLAEA CYIGDIVVFG TVFLSIFYSV IFAIGLVGNL LVVFALTNSK
KPKSVTDIYL LNLALSDLLF VATLPFWTHY LINEKGLHNA MCKFTTAAFF IGFFGSIFFI
TVISIDRYLA IVLAANSMNN RTVQHGVTIS LGVWAAAILV AAPQFMFTKQ KENECLGDYP
EVLQEIWVPL RNVETNFLGF LLPLLIMSYC YFRIIQTLS CKNHKKAKAI KLILLVVIVF
FLFWTPYNVM IFLETLKLYD FFPSCDMRKD LRLALSVTET VAFSHCCLNP LIYAFAGEKF
RRLYHYLYGK CLAVLCGRSV HVDFFSSSESQ RSRHGSLSS NPTYHTSDGD ALLLL

Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.

Characteristics:	Key Benefits: <ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Protein expressed with ALICE® and purified by multi-step, protein-specific process to ensure
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correct folding and modification.

- These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed).
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a **made-to-order protein** and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our **made-to-order proteins** in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

Purification:

Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®):

1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.
2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity:

>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Product Details

Endotoxin Level: Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)

Grade: Crystallography grade

Target Details

Target: CX3CR1

Alternative Name: CX3CR1 ([CX3CR1 Products](#))

Background: CX3C chemokine receptor 1 (C-X3-C CKR-1) (CX3CR1) (Beta chemokine receptor-like 1) (CMK-BRL-1) (CMK-BRL1) (Fractalkine receptor) (G-protein coupled receptor 13) (V28),FUNCTION: Receptor for the C-X3-C chemokine fractalkine (CX3CL1) present on many early leukocyte cells, CX3CR1-CX3CL1 signaling exerts distinct functions in different tissue compartments, such as immune response, inflammation, cell adhesion and chemotaxis (PubMed:9390561, PubMed:9782118, PubMed:12055230, PubMed:23125415). CX3CR1-CX3CL1 signaling mediates cell migratory functions (By similarity). Responsible for the recruitment of natural killer (NK) cells to inflamed tissues (By similarity). Acts as a regulator of inflammation process leading to atherogenesis by mediating macrophage and monocyte recruitment to inflamed atherosclerotic plaques, promoting cell survival (By similarity). Involved in airway inflammation by promoting interleukin 2-producing T helper (Th2) cell survival in inflamed lung (By similarity). Involved in the migration of circulating monocytes to non-inflamed tissues, where they differentiate into macrophages and dendritic cells (By similarity). Acts as a negative regulator of angiogenesis, probably by promoting macrophage chemotaxis (PubMed:14581400, PubMed:18971423). Plays a key role in brain microglia by regulating inflammatory response in the central nervous system (CNS) and regulating synapse maturation (By similarity). Required to restrain the microglial inflammatory response in the CNS and the resulting parenchymal damage in response to pathological stimuli (By similarity). Involved in brain development by participating in synaptic pruning, a natural process during which brain microglia eliminates extra synapses during postnatal development (By similarity). Synaptic pruning by microglia is required to promote the maturation of circuit connectivity during brain development (By similarity). Acts as an important regulator of the gut microbiota by controlling immunity to intestinal bacteria and fungi (By similarity). Expressed in lamina propria dendritic cells in the small intestine, which form transepithelial dendrites capable of taking up bacteria in order to provide defense against pathogenic bacteria (By similarity). Required to initiate innate and adaptive immune responses against dissemination of commensal fungi (mycobiota) component of the gut: expressed in mononuclear phagocytes (MNPs) and acts by promoting induction of antifungal IgG antibodies response to confer protection against disseminated

Target Details

C.albicans or C.auris infection (PubMed:29326275). Also acts as a receptor for C-C motif chemokine CCL26, inducing cell chemotaxis (PubMed:20974991).
{ECO:0000250|UniProtKB:Q9Z0D9, ECO:0000269|PubMed:12055230,
ECO:0000269|PubMed:14581400, ECO:0000269|PubMed:18971423,
ECO:0000269|PubMed:20974991, ECO:0000269|PubMed:23125415,
ECO:0000269|PubMed:29326275, ECO:0000269|PubMed:9390561,
ECO:0000269|PubMed:9782118}., FUNCTION: [Isoform 1]: (Microbial infection) Acts as a coreceptor with CD4 for HIV-1 virus envelope protein. {ECO:0000269|PubMed:14607932, ECO:0000269|PubMed:9726990}., FUNCTION: [Isoform 2]: (Microbial infection) Acts as a coreceptor with CD4 for HIV-1 virus envelope protein (PubMed:14607932). May have more potent HIV-1 coreceptothr activity than isoform 1 (PubMed:14607932).
{ECO:0000269|PubMed:14607932}., FUNCTION: [Isoform 3]: (Microbial infection) Acts as a coreceptor with CD4 for HIV-1 virus envelope protein (PubMed:14607932). May have more potent HIV-1 coreceptor activity than isoform 1 (PubMed:14607932).
{ECO:0000269|PubMed:14607932}.

Molecular Weight:	40.4 kDa
UniProt:	P49238
Pathways:	Cellular Response to Molecule of Bacterial Origin

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	<p>ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from <i>Nicotiana tabacum</i> c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.</p> <p>During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!</p>
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process