

Datasheet for ABIN3092613
FOXP3 Protein (AA 1-417) (His tag)

3 Images

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Overview

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| Quantity: | 1 mg |
| Target: | FOXP3 |
| Protein Characteristics: | AA 1-417 |
| Origin: | Human |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This FOXP3 protein is labelled with His tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

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| Sequence: | MPNPRPGKPS APSLALGPSP GASPSWRAAP KASDLLGARG PGGTFQGRDL RGGAHASSSS LNPMPPSQLQ LPTLPLVMVA PSGARLGPLP HLQALLQDRP HFMHQLSTVD AHARTPVLQV HPLESPAMIS LTPPTTATGV FSLKARPLP PGINVASLEW VSREPALLCT FPNPSAPRKD STLSAVPQSS YPLLANGVCK WPGCEKVFEED PEDFLKHCQA DHLLDEKGRA QCLLQREMOVQ SLEQQLVLEK EKLSAMQAH LAGKMA LTKAS SVASSDKGSC CIVAAGSQGP VVPAWSGP RE APDSLFAVRR HLWGSHGNST FPEFLHNMDY KKFHNMRPPF TYATLIRWAI LEAPEKQRTL NEIYHWFTRM FAFFRNHPAT WKNAIRHNLS LHKCFVRVES EKGAVWTVDE LEFRKKRGSS GHHHHHHH |
| Specificity: | C-terminal His-tag |
| Characteristics: | <ul style="list-style-type: none">• Made in Germany - from design to production - by highly experienced protein experts.• Human FOXP3 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. |

Product Details

- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This made-to-order protein has already been successfully produced. Please let us know if you are interested in purchasing a smaller amount of this protein. We will check our stock and make you a customized quote in case we can provide this protein in a smaller amount..

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the ExPASy's protparam tool to determine the absorption coefficient of each protein.

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| Purification: | Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. 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: | >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot. |
| Sterility: | 0.22 µm filtered |
| Endotoxin Level: | Protein is endotoxin free. |
| Grade: | Crystallography grade |

Target Details

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|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Target: | FOXP3 |
| Alternative Name: | FOXP3 (FOXP3 Products) |
| Background: | Transcriptional regulator which is crucial for the development and inhibitory function of regulatory T-cells (Treg). Plays an essential role in maintaining homeostasis of the immune system by allowing the acquisition of full suppressive function and stability of the Treg lineage, and by directly modulating the expansion and function of conventional T-cells. Can act either as a transcriptional repressor or a transcriptional activator depending on its interactions with other transcription factors, histone acetylases and deacetylases. The suppressive activity of Treg |

Target Details

involves the coordinate activation of many genes, including CTLA4 and TNFRSF18 by FOXP3 along with repression of genes encoding cytokines such as interleukin-2 (IL2) and interferon-gamma (IFNG). Inhibits cytokine production and T-cell effector function by repressing the activity of two key transcription factors, RELA and NFATC2 (PubMed:15790681). Mediates transcriptional repression of IL2 via its association with histone acetylase KAT5 and histone deacetylase HDAC7 (PubMed:17360565). Can activate the expression of TNFRSF18, IL2RA and CTLA4 and repress the expression of IL2 and IFNG via its association with transcription factor RUNX1 (PubMed:17377532). Inhibits the differentiation of IL17 producing helper T-cells (Th17) by antagonizing RORC function, leading to down-regulation of IL17 expression, favoring Treg development (PubMed:18368049). Inhibits the transcriptional activator activity of RORA (PubMed:18354202). Can repress the expression of IL2 and IFNG via its association with transcription factor IKZF4 (By similarity). {ECO:0000250|UniProtKB:Q99JB6, ECO:0000269|PubMed:15790681, ECO:0000269|PubMed:17360565, ECO:0000269|PubMed:17377532, ECO:0000269|PubMed:18354202, ECO:0000269|PubMed:18368049, ECO:0000269|PubMed:23169781}.

Molecular Weight: 46.7 kDa Including tag.

UniProt: [Q9BZS1](#)

Pathways: [Chromatin Binding](#), [Regulation of Leukocyte Mediated Immunity](#), [Positive Regulation of Immune Effector Process](#), [Production of Molecular Mediator of Immune Response](#), [Activated T Cell Proliferation](#)

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: In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

Restrictions: For Research Use only

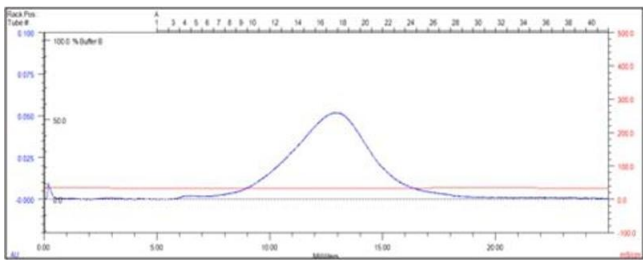
Handling

Format: Liquid

Handling

| | |
|------------------|------------------------------------|
| Buffer: | 20 mM Hepes, pH 7.2; 300 mM NaCl |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | Unlimited (if stored properly) |

Images



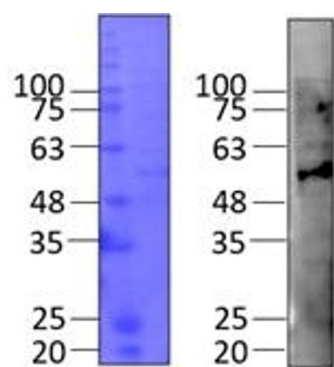
Forkhead Box P3 (FOXP3)|Q9BZS1|1-417,
gel filtration, Superdex 200 fractions 17-19

Size-exclusion chromatography-High Pressure Liquid Chromatography

Image 1.



Image 2. „Crystallography Grade“ protein due to multi-step, protein-specific purification process



Forkhead Box P3
(FOXP3)|Q9BZS1|1-417
Fractions 17-19

Western Blotting

Image 3.