

Datasheet for ABIN3093209

## INSM1 Protein (AA 1-510) (Strep Tag)



[Go to Product page](#)

### Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 250 µg   |
| Target:                       | INSM1  |
| Protein Characteristics:      | AA 1-510                                       |
| Origin:                       | Human  |
| Source:                       | Cell-free protein synthesis (CFPS)             |
| Protein Type:                 | Recombinant                                    |
| Purification tag / Conjugate: | This INSM1 protein is labelled with Strep Tag. |
| Application:                  | SDS-PAGE (SDS), Western Blotting (WB), ELISA   |

### Product Details

|           |   |
|-----------|---|
| Brand:    | AliCE®  |
| Sequence: | <p>MPRGFLVKRS KKSTPVSRYV RGGEDGDRAL LLSPSCGGAR AEPPAPSPVP GPLPPPPPAE<br/> RAHAALAAAL ACAPGPQPPP QGPRAAHFGN PEAAHPAPLY SPTRPVSREH EKHKYFERSF<br/> NLGSPVSAES FPTPAALLGG GGGGGASGAG GGGTCGGDPL LFAPAELKMG TAFSAGAEAA<br/> RGPGPGPPLP PAAALRPPGK RPPPTAAEP PAKAVKAPGA KKPKAIRKLH FEDEVTTSPV<br/> LGLKIKEGPV EAPRGRAGGA ARPLGEFICQ LCKEEYADPF ALAQHKCSRI VRVEYRCPEC<br/> AKVFSCPANL ASHRRWHKPR PAPAAARAPE PEAAAARAEAR EAPGGGSDRD TPSPGGVSES<br/> GSEDGLYECH HCAKKFRRQA YLRKHLLAHH QALQAKGAPL APPAEDLLAL YPGPDEKAPQ<br/> EAAGDGEGAG VLGLSASAEC HLCPCVCGESF ASKGAQERHL RLLHAAQVFP CKYCPATFYs<br/> SPGLTRHINK CHPSENQVI LLQVPVRPAC</p> <p><b>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</b></p> |

**have a special request, please contact us.**

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Characteristics:

Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- 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 try to ensure that you receive soluble 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 against its specific reference buffer.
- We use the ExPASy's ProtParam tool to determine the absorption coefficient of each protein.

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Purification:

One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

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Purity:

> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

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Grade:

custom-made

## Target Details

|                   |   |
|-------------------|---|
| Target:           | INSM1   |
| Alternative Name: | INSM1 ( <a href="#">INSM1 Products</a> )  |
| Background:       | <p>Insulinoma-associated protein 1 (Zinc finger protein IA-1),FUNCTION: Sequence-specific DNA-binding transcriptional regulator that plays a key role in neurogenesis and neuroendocrine cell differentiation during embryonic and/or fetal development. Binds to the consensus sequence 5'-[TG][TC][TC][TT][GA]GGG[CG]A-3' in target promoters. Acts as a transcriptional repressor of NEUROD1 and INS expression via its interaction with cyclin CCND1 in a cell cycle-independent manner. Negatively regulates skeletal muscle-specific gene expression in endocrine cells of the pituitary by inhibiting the Notch signaling pathway. Represses target gene transcription by recruiting chromatin-modifying factors, such as HDAC1, HDAC2, HDAC3, KDM1A and RCOR1 histone deacetylases. Binds to its own promoter, suggesting autoregulation as a self-control feedback mechanism. Competes with histone H3 for the same binding site on the histone demethylase complex formed by KDM1A and RCOR1, and thereby inhibits demethylation of histone H3 at 'Lys-4' (PubMed:23721412). Promotes the generation and expansion of neuronal basal progenitor cells in the developing neocortex. Involved in the differentiation of endocrine cells of the developing anterior pituitary gland, of the pancreas and intestine, and of sympatho-adrenal cells in the peripheral nervous system. Promotes cell cycle signaling arrest and inhibition of cellular proliferation. {ECO:0000269 PubMed:11842116, ECO:0000269 PubMed:16511571, ECO:0000269 PubMed:16569215, ECO:0000269 PubMed:18417529, ECO:0000269 PubMed:19124461, ECO:0000269 PubMed:23721412}.</p> |
| Molecular Weight: | 52.9 kDa  |
| UniProt:          | <a href="#">Q01101</a>  |

## 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</p> |

Application Details

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Restrictions: For Research Use only

Handling

|                  |  |
|------------------|--|
| Format:          | Liquid   |
| Buffer:          | The buffer composition is at the discretion of the manufacturer.<br>Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol <b>Might differ depending on protein.</b> |
| Handling Advice: | Avoid repeated freeze-thaw cycles.   |
| Storage:         | -80 °C   |
| Storage Comment: | Store at -80°C.  |
| Expiry Date:     | 12 months  |