

# Datasheet for ABIN7562911

# POU4F1 Protein (AA 1-421) (His tag)



## Overview

Quantity:	1 mg
Target:	POU4F1
Protein Characteristics:	AA 1-421
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This POU4F1 protein is labelled with His tag.

Product Details	
Purpose:	Custom-made recombinant Pou4f1 Protein expressed in mammalian cells.
Sequence:	MMSMNSKQPH FAMHPTLPEH KYPSLHSSSE AIRRACLPTP PLQSNLFASL DETLLARAEA
	LAAVDIAVSQ GKSHPFKPDA TYHTMNSVPC TSTSTVPLAH HHHHHHHHQA LEPGDLLDHI
	SSPSLALMAG AGGAGAAGGG GGAHDGPGGG GGPGGGGGPG GGPGGGGGG
	GGGLLGGSAH PHPHMHGLGH LSHPAAAAAM NMPSGLPHPG LVAAAAHHGA AAAAAAAAAG
	QVAAASAAAA VVGAAGLASI CDSDTDPREL EAFAERFKQR RIKLGVTQAD VGSALANLKI
	PGVGSLSQST ICRFESLTLS HNNMIALKPI LQAWLEEAEG AQREKMNKPE LFNGGEKKRK
	RTSIAAPEKR SLEAYFAVQP RPSSEKIAAI AEKLDLKKNV VRVWFCNQRQ KQKRMKFSAT Y
	Sequence without tag. The proposed Purification-Tag is based on experiences 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.
Specificity:	If you are looking for a specific domain and are interested in a partial protein or a different
	isoform, please contact us regarding an individual offer.

#### Characteristics:

Key Benefits:

- Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

#### Purity:

> 90 % as determined by Bis-Tris PAGE, anti-tag ELISA, Western Blot and analytical SEC (HPLC)

#### Grade:

custom-made

## **Target Details**

Target:
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#### POU4F1

## Alternative Name:

## Pou4f1 (POU4F1 Products)

## Background:

POU domain, class 4, transcription factor 1 (Brain-specific homeobox/POU domain protein 3A) (Brain-3A) (Brn-3A) (Brn-3.0),FUNCTION: Multifunctional transcription factor with different regions mediating its different effects (PubMed:10640682, PubMed:8621561, PubMed:9694219, PubMed:9722627). Acts by binding (via its C-terminal domain) to sequences related to the consensus octamer motif 5'-ATGCAAAT-3' in the regulatory regions of its target genes (PubMed:8621561, PubMed:17668438). Regulates the expression of specific genes involved in differentiation and survival within a subset of neuronal lineages. It has been shown that activation of some of these genes requires its N-terminal domain, maybe through a neuronal-specific cofactor (PubMed:12934100). Ativates BCL2 expression and protects neuronal cells from apoptosis (via the N-terminal domain) (PubMed:9722627). Induces neuronal process outgrowth and the coordinate expression of genes encoding synaptic proteins (PubMed:8972215). Exerts its major developmental effects in somatosensory neurons and in brainstern nuclei involved in motor control. Stimulates the binding affinity of the nuclear

estrogene receptor ESR1 to DNA estrogen response element (ERE), and hence modulates ESR1-induced transcriptional activity (PubMed:9448000). May positively regulate POU4F2 and POU4F3 (PubMed:8876243). Regulates dorsal root ganglion sensory neuron specification and axonal projection into the spinal cord (PubMed:22326227). Plays a role in TNFSF11-mediated terminal osteoclast differentiation (PubMed:17668438). Negatively regulates its own expression interacting directly with a highly conserved autoregulatory domain surrounding the transcription initiation site (PubMed:12441296). {ECO:0000269|PubMed:10640682, ECO:0000269|PubMed:12441296, ECO:0000269|PubMed:12934100,

ECO:0000269|PubMed:17668438, ECO:0000269|PubMed:22326227,

ECO:0000269|PubMed:8621561, ECO:0000269|PubMed:8876243,

ECO:0000269|PubMed:8972215, ECO:0000269|PubMed:9448000,

ECO:0000269|PubMed:9694219, ECO:0000269|PubMed:9722627}., FUNCTION: [Isoform 2]: Able to act as transcription factor, cannot regulate the expression of the same subset of genes

than isoform 1 (PubMed:12934100). Does not have antiapoptotic effect on neuronal cells (PubMed:9722627). {ECO:0000269|PubMed:12934100, ECO:0000269|PubMed:9722627}.

Molecular Weight: 42.8 kDa

UniProt: P17208

Pathways: **Feeding Behaviour** 

## **Application Details**

**Application Notes:** We expect the protein to work for functional studies. As the protein has not been tested for

functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

## Handling

Format: Liquid Buffer: The buffer composition is at the discretion of the manufacturer. Handling Advice: Avoid repeated freeze-thaw cycles. -80 °C Storage: Storage Comment: Store at -80°C.

**Expiry Date:** 12 months