

# Datasheet for ABIN7551528 RRAGD Protein (AA 1-400) (His tag)



# Overview

Quantity:	1 mg
Target:	RRAGD
Protein Characteristics:	AA 1-400
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RRAGD protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

#### Product Datails

Purpose:	Custom-made recombinat RRAGD Protein expressed in mammalien cells.
Sequence:	MSQVLGKPQP QDEDDAEEEE EEDELVGLAD YGDGPDSSDA DPDSGTEEGV LDFSDPFSTE
	VKPRILLMGL RRSGKSSIQK VVFHKMSPNE TLFLESTNKI CREDVSNSSF VNFQIWDFPG
	QIDFFDPTFD YEMIFRGTGA LIFVIDSQDD YMEALARLHL TVTRAYKVNT DINFEVFIHK
	VDGLSDDHKI ETQRDIHQRA NDDLADAGLE KIHLSFYLTS IYDHSIFEAF SKVVQKLIPQ
	LPTLENLLNI FISNSGIEKA FLFDVVSKIY IATDSTPVDM QTYELCCDMI DVVIDISCIY
	GLKEDGAGTP YDKESTAIIK LNNTTVLYLK EVTKFLALVC FVREESFERK GLIDYNFHCF
	RKAIHEVFEV RMKVVKSRKV QNRLQKKKRA TPNGTPRVLL 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.
Characteristics:	Key Benefits:

- · Made to order protein from design to production by highly experienced protein experts.
- · Protein expressed in mammalien 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, Western Blot

Grade:

custom-made

#### **Target Details**

Target:	RRAGD
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#### Alternative Name:

### RRAGD (RRAGD Products)

#### Background:

Ras-related GTP-binding protein D (Rag D) (RagD) (EC 3.6.5.-),FUNCTION: Guanine nucleotide-binding protein that plays a crucial role in the cellular response to amino acid availability through regulation of the mTORC1 signaling cascade (PubMed:20381137, PubMed:24095279, PubMed:34607910). Forms heterodimeric Rag complexes with RagA/RRAGA or RagB/RRAGB and cycles between an inactive GTP-bound and an active GDP-bound form: RagD/RRAGD is in its active form when GDP-bound RagD/RRAGD forms a complex with GTP-bound RagA/RRAGA (or RagB/RRAGB) and in an inactive form when GTP-bound RagD/RRAGD heterodimerizes with GDP-bound RagA/RRAGA (or RagB/RRAGB) (PubMed:24095279). In its active form, promotes the recruitment of mTORC1 to the lysosomes and its subsequent activation by the GTPase RHEB (PubMed:20381137, PubMed:24095279). This is a crucial step in the activation of the MTOR signaling cascade by amino acids (PubMed:20381137, PubMed:24095279). Also plays a central role in the non-canonical mTORC1 complex, which acts independently of RHEB and specifically mediates phosphorylation of MiT/TFE factors TFEB and TFE3: GDP-bound RagD/RRAGD mediates recruitment of MiT/TFE factors TFEB and TFE3 (PubMed:32612235).

# **Target Details**

Expiry Date:

12 months

Target Details	
	{ECO:0000269 PubMed:20381137, ECO:0000269 PubMed:24095279,
	ECO:0000269 PubMed:32612235, ECO:0000269 PubMed:34607910}.
Molecular Weight:	45.6 kDa
UniProt:	Q9NQL2
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.
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.
Storage:	-80 °C
Storage Comment:	Store at -80°C.