Datasheet for ABIN7553748

# Dynamin 1 Protein (DNM1) (AA 1-864) (His tag)

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## Overview

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| Quantity: | 1 mg |
| Target: | Dynamin 1 (DNM1) |
| Protein Characteristics: | AA 1-864 |
| Origin: | Human |
| Source: | HEK-293 Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This Dynamin 1 protein is labelled with His tag. |
| Application: | SDS-PAGE (SDS), Western Blotting (WB) |

## Product Details

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| Purpose: | Custom-made recombinat DNM1 Protein expressed in mammalien cells. |
| Sequence: | MGNRGMEDLI PLVNRLQDAF SAIGQNADLD LPQIAVVGGQ SAGKSSVLEN FVGRDFLPRG SGIVTRRPLV LQLVNATTEY AEFLHCKGKK FTDFEEVRLE IEAETDRVTG TNKGISPVPI NLRVYSPHVL NLTLVDLPGM TKVPVGDQPP DIEFQIRDML MQFVTKENCL ILAVSPANSD LANSDALKVA KEVDPQGQRT IGVITKLDLM DEGTDARDVL ENKLLPLRRG YIGVVNRSQK DIDGKKDITA ALAAERKFFL SHPSYRHLAD RMGTPYLQKV LNQQLTNHIR DTLPGLRNKL QSQLLSIEKE VEEYKNFRPD DPARKTKALL QMVQQFAVDF EKRIEGSGDQ IDTYELSGGA RINRIFHERF PFELVKMEFD EKELRREISY AIKNIHGIRT GLFTPDMAFE TIVKKQVKKI REPCLKCVDM VISELISTVR QCTKKLQQYP RLREEMERIV TTHIREREGR TKEQVMLLID IELAYMNTNH EDFIGFANAQ QRSNQMNKKK TSGNQDEILV IRKGWLTINN IGIMKGGSKE YWFVLTAENL SWYKDDEEKE KKYMLSVDNL KLRDVEKGFM SSKHIFALFN TEQRNVYKDY RQLELACETQ EEVDSWKASF LRAGVYPERV GDKEKASETE ENGSDSFMHS MDPQLERQVE |

## Product Details

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| | TIRNLVDSYM AIVNKTVRDL MPKTIMHLMI NNTKEFIFSE LLANLYSCGD QNTLMEESAE QAQRRDEMLR MYHALKEALS IIGDINTTTV STPMPPPVDD SWLQVQSVPA GRRSPTSSPT PQRRAPAVPP ARPGSRGPAP GPPPAGSALG GAPPVPSRPG ASPDPFGPPP QVPSRPNRAP PGVPSRSGQA SPSRPESPRP PFDL **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:<br>• Made to order protein - from design to production - by highly experienced protein experts.<br>• Protein expressed in mammalien cells and purified in one-step affinity chromatography<br>• The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.<br>• State-of-the-art algorithm used for plasmid design (Gene synthesis).<br><br>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.<br><br>If you are not interested in a full length protein, please contact us for individual protein fragments.<br><br>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

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| Target: | Dynamin 1 (DNM1) |
| Alternative Name: | DNM1 (DNM1 Products) |
| Background: | Dynamin-1 (EC 3.6.5.5) (Dynamin) (Dynamin I),FUNCTION: Catalyzes the hydrolysis of GTP and utilizes this energy to mediate vesicle scission and participates in many forms of endocytosis, such as clathrin-mediated endocytosis or synaptic vesicle endocytosis as well as rapid endocytosis (RE) (PubMed:8910402, PubMed:20428113, PubMed:15703209, PubMed:9362482, PubMed:29668686, PubMed:8101525). Associates to the membrane, through lipid binding, and self-assembles into rings and stacks of interconnected rings through oligomerization to form a helical polymer around the vesicle membrane leading to constriction of invaginated coated pits |

## Target Details

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| | around their necks (PubMed:7877694, PubMed:9922133, PubMed:30069048). Self-assembly of the helical polymer induces membrane tubules narrowing until the polymer reaches a length sufficient to trigger GTP hydrolysis (PubMed:19084269). Depending on the curvature imposed on the tubules, membrane detachment from the helical polymer upon GTP hydrolysis can cause spontaneous hemifission followed by complete fission (PubMed:19084269). May play a role in regulating early stages of clathrin-mediated endocytosis in non-neuronal cells through its activation by dephosphorylation via the signaling downstream of EGFR (PubMed:29668686). Controls vesicle size at a step before fission, during formation of membrane pits, at hippocampal synapses (By similarity). Controls plastic adaptation of the synaptic vesicle recycling machinery to high levels of activity (By similarity). Mediates rapid endocytosis (RE), a Ca(2+)-dependent and clathrin- and K(+)-independent process in chromaffin cells (By similarity). Microtubule-associated force-producing protein involved in producing microtubule bundles and able to bind and hydrolyze GTP (By similarity). Through its interaction with DNAJC6, acts during the early steps of clathrin-coated vesicle (CCV) formation (PubMed:12791276). {ECO:0000250\|UniProtKB:P39053, ECO:0000250\|UniProtKB:Q08DF4, ECO:0000269\|PubMed:12791276, ECO:0000269\|PubMed:15703209, ECO:0000269\|PubMed:19084269, ECO:0000269\|PubMed:20428113, ECO:0000269\|PubMed:29668686, ECO:0000269\|PubMed:30069048, ECO:0000269\|PubMed:7877694, ECO:0000269\|PubMed:8101525, ECO:0000269\|PubMed:8910402, ECO:0000269\|PubMed:9362482, ECO:0000269\|PubMed:9922133}. |
| Molecular Weight: | 97.4 kDa |
| UniProt: | Q05193 |
| Pathways: | Toll-Like Receptors Cascades, CXCR4-mediated Signaling Events, Thromboxane A2 Receptor Signaling |

## Application Details

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| 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

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| 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. |
| Expiry Date: | 12 months |