**OriGene Technologies, Inc.**
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

# Product datasheet for PH314076

## CDC42 (NM_001791) Human Mass Spec Standard

### Product data:

| | |
|---|---|
| **Product Type:** | Mass Spec Standards |
| **Description:** | CDC42 MS Standard C13 and N15-labeled recombinant protein (NP_001782) |
| **Species:** | Human |
| **Expression Host:** | HEK293 |
| **Expression cDNA Clone or AA Sequence:** | RC214076 |
| **Predicted MW:** | 21.1 kDa |
| **Protein Sequence:** | >RC214076 representing NM_001791<br>Red=Cloning site Green=Tags(s)<br><br>MQTIKCVVVGDGAVGKTCLLISYTTNKFPSEYVPTVFDNYAVTVMIGGEPYTLGLFDTAGQEDYDRLRPL<br>SYPQTDVFLVCFSVVSPSSFENVKEKWVPEITHHCPKTPFLLVGTQIDLRDDPSTIEKLAKNKQKPITPE<br>TAEKLARDLKAVKYVECSALTQKGLKNVFDEAILAALEPPEPKKSRRCVLL<br><br>TRTRPLEQKLISEEDLAANDILDYKDDDDKV |
| **Tag:** | C-Myc/DDK |
| **Purity:** | > 80% as determined by SDS-PAGE and Coomassie blue staining |
| **Concentration:** | >0.05 µg/µL as determined by microplate BCA method |
| **Labeling Method:** | Labeled with [U- 13C6, 15N4]-L-Arginine and [U- 13C6, 15N2]-L-Lysine |
| **Buffer:** | 25 mM Tris-HCl, 100 mM glycine, pH 7.3 |
| **Storage:** | Store at -80°C. Avoid repeated freeze-thaw cycles. |
| **Stability:** | Stable for 3 months from receipt of products under proper storage and handling conditions. |
| **RefSeq:** | NP_001782 |
| **RefSeq Size:** | 2183 |
| **RefSeq ORF:** | 573 |
| **Synonyms:** | CDC42Hs; G25K; TKS |
| **Locus ID:** | 998 |
| **UniProt ID:** | P60953, A0A024RAA5 |

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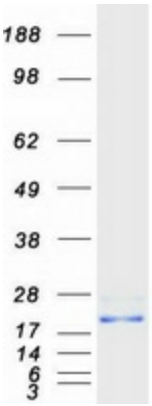
**Cytogenetics:** 1p36.12

**Summary:** The protein encoded by this gene is a small GTPase of the Rho-subfamily, which regulates signaling pathways that control diverse cellular functions including cell morphology, migration, endocytosis and cell cycle progression. This protein is highly similar to Saccharomyces cerevisiae Cdc 42, and is able to complement the yeast cdc42-1 mutant. The product of oncogene Dbl was reported to specifically catalyze the dissociation of GDP from this protein. This protein could regulate actin polymerization through its direct binding to Neural Wiskott-Aldrich syndrome protein (N-WASP), which subsequently activates Arp2/3 complex. Alternative splicing of this gene results in multiple transcript variants. Pseudogenes of this gene have been identified on chromosomes 3, 4, 5, 7, 8 and 20. [provided by RefSeq, Apr 2013]

**Protein Families:** Druggable Genome

**Protein Pathways:** Adherens junction, Axon guidance, Chemokine signaling pathway, Endocytosis, Epithelial cell signaling in Helicobacter pylori infection, Fc gamma R-mediated phagocytosis, Focal adhesion, GnRH signaling pathway, Leukocyte transendothelial migration, MAPK signaling pathway, Neurotrophin signaling pathway, Pancreatic cancer, Pathogenic Escherichia coli infection, Pathways in cancer, Regulation of actin cytoskeleton, Renal cell carcinoma, T cell receptor signaling pathway, Tight junction, VEGF signaling pathway

## Product images:




Coomassie blue staining of purified CDC42 protein (Cat# [TP314076]). The protein was produced from HEK293T cells transfected with CDC42 cDNA clone (Cat# [RC214076]) using MegaTran 2.0 (Cat# [TT210002]).