

## Product datasheet for PH310082

### DSU (MREG) (NM\_018000) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	MREG MS Standard C13 and N15-labeled recombinant protein (NP_060470)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC210082
Predicted MW:	25 kDa
Protein Sequence:	>RC210082 protein sequence <span style="color: red;">Red</span> =Cloning site <span style="color: green;">Green</span> =Tags(s)

MGLRDWLRTVCCCRCECLEERALPEKEPLVSDNNPYSSFGATLVRDDEKNLWSMPHDVSHTAEADDRTL  
 YNLIVIRNQAKDSEEWQKLNYDIHTLRQVRREVRNRWKCILEDLGFQKEADSLLSVTKLSTISDSKNTR  
 KAREMLLKLAETNIFPTSWELSERYLFVVDRLIALDAAEEFFKLARRTYPKPGVPCLADGQKELHYLP  
 FPSP

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- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-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:	<u>NP_060470</u>
RefSeq Size:	3213
RefSeq ORF:	642
Synonyms:	DSU; WDT2
Locus ID:	55686
UniProt ID:	<u>Q8N565</u>


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**Cytogenetics:** 2q35

**Summary:** Probably functions as cargo-recognition protein that couples cytoplasmic vesicles to the transport machinery. Plays a role in hair pigmentation, a process that involves shedding of melanosome-containing vesicles from melanocytes, followed by phagocytosis of the melanosome-containing vesicles by keratinocytes. Functions on melanosomes as receptor for RILP and the complex formed by RILP and DCTN1, and thereby contributes to retrograde melanosome transport from the cell periphery to the center. Overexpression causes accumulation of late endosomes and/or lysosomes at the microtubule organising center (MTOC) at the center of the cell. Probably binds cholesterol and requires the presence of cholesterol in membranes to function in microtubule-mediated retrograde organelle transport. Binds phosphatidylinositol 3-phosphate, phosphatidylinositol 4-phosphate, phosphatidylinositol 5-phosphate and phosphatidylinositol 3,5-bisphosphate, but not phosphatidylinositol 3,4-bisphosphate or phosphatidylinositol 4,5-bisphosphate (By similarity). Required for normal phagosome clearing and normal activation of lysosomal enzymes in lysosomes from retinal pigment epithelium cells (PubMed:19240024). Required for normal degradation of the lipofuscin component N-retinylidene-N-retinylethanolamine (A2E) in the eye. May function in membrane fusion and regulate the biogenesis of disk membranes of photoreceptor rod cells (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Coomassie blue staining of purified MREG protein (Cat# [TP310082]). The protein was produced from HEK293T cells transfected with MREG cDNA clone (Cat# [RC210082]) using MegaTran 2.0 (Cat# [TT210002]).