

## Product datasheet for PH308683

### PEG10 (NM\_001040152) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	PEG10 MS Standard C13 and N15-labeled recombinant protein (NP_001035242)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC208683
Predicted MW:	37 kDa
Protein Sequence:	>RC208683 protein sequence Red=Cloning site Green=Tags(s)  MTERRRDELSEEINNLREKVMKQSEENNLQSQVQKLTEENTTLREQVEPTPEDEDDDIELRGAAAAAP PPPIEEECPEDLPEKFDGNPDMLAPFMAQCQIFMEKSTRDFSVDVRVCFVTSMMTGRAARWASAKLERS HYLMHNYPAFMMEMKHVFEDPQRREVAKRKIRRLRQGMGSVIDYSNAFQMI AQDLWNEPALIDQYHEGL SDHIQEELSHLEVAKSLSALIGQCIHIERRLARAAAARKPRSPPRALVLPHIASHHQVDPTEPVGGARMR LTQEEKERRRKLNLCLYCGTGGHYADNCPAKASKSSPAGNSAPL  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:	<a href="#">NP_001035242</a>
RefSeq Size:	6628
RefSeq ORF:	975
Synonyms:	EDR; HB-1; Mar2; Mart2; MEF3L; RGAG3; RTL2; SIRH1
Locus ID:	23089



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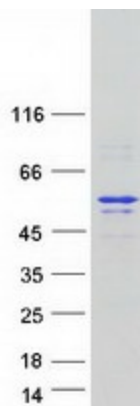
UniProt ID: [Q86TG7](#)

Cytogenetics: 7q21.3

**Summary:**

This is a paternally expressed imprinted gene that is thought to have been derived from the Ty3/Gypsy family of retrotransposons. It contains two overlapping open reading frames, RF1 and RF2, and expresses two proteins: a shorter, gag-like protein (with a CCHC-type zinc finger domain) from RF1; and a longer, gag/pol-like fusion protein (with an additional aspartic protease motif) from RF1/RF2 by -1 translational frameshifting (-1 FS). While -1 FS has been observed in RNA viruses and transposons in both prokaryotes and eukaryotes, this gene represents the first example of -1 FS in a eukaryotic cellular gene. This gene is highly conserved across mammalian species and retains the heptanucleotide (GGGAAAC) and pseudoknot elements required for -1 FS. It is expressed in adult and embryonic tissues (most notably in placenta) and reported to have a role in cell proliferation, differentiation and apoptosis. Overexpression of this gene has been associated with several malignancies, such as hepatocellular carcinoma and B-cell lymphocytic leukemia. Knockout mice lacking this gene showed early embryonic lethality with placental defects, indicating the importance of this gene in embryonic development. Additional isoforms resulting from alternatively spliced transcript variants, and use of upstream non-AUG (CUG) start codon have been reported for this gene. [provided by RefSeq, Oct 2014]

**Product images:**



Coomassie blue staining of purified PEG10 protein (Cat# [TP308683]). The protein was produced from HEK293T cells transfected with PEG10 cDNA clone (Cat# [RC208683]) using MegaTran 2.0 (Cat# [TT210002]).