



# Recombinant Protein Technical Manual

## Recombinant Human PRDM2/RIZ1 Protein

RPES2819

### Product Data:

**Product SKU:** RPES2819

**Size:** 20µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** NP\_036363.2

### Protein Information:

**Molecular Mass:** 23 kDa

**AP Molecular Mass:** 26 kDa

**Tag:**

**Bio-activity:**

**Purity:** > 96 % as determined by reducing SDS-PAGE.

**Endotoxin:** Please contact us for more information.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 20mM Tris, 150mM NaCl, 0.5mM DTT, 0.5mM GSH, pH 8.0

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** HUMHOXY1;KMT8;MTB-ZF;RIZ;RIZ1;RIZ2

## Immunogen Information:

**Sequence:** Met 1-Ala 200

## Background:

PR domain containing 2, with ZNF domain (PRDM2), also known as zinc finger protein RIZ, is a member of histone methyltransferase (HMT) class enzymes that methylate lysine residues of histones or proteins. HMTs contain a conserved catalytic core termed the SET domain, which shares sequence homology with an independently described sequence motif, the PR domain. PRDM2 contains 8 C2H2-type zinc fingers and a distinct SET domain, and is highly expressed in retinoblastoma cell lines and in brain tumors, as well as in a number of other cell lines and in brain, heart, skeletal muscle, liver and spleen. PRDM2 is a S-adenosyl-L-methionine-dependent histone methyltransferase that specifically methylates 'Lys-9' of histone H3, and is identified as a tumor suppressor. It is reported that intact PR( SET) sequence is required for tumor suppression functions, mutations in the PR domain caused activity reduction in human cancers. Also, S-adenosylhomocysteine or methyl donor deficiency inhibits RIZ1 and other H3 lysine 9 methylation activities. PRDM2 may also function as a DNA-binding transcription factor. It binds to the macrophage-specific TPA-responsive element (MTE) of the HMOX1 (heme oxygenase 1) gene and act as a transcriptional activator. In addition, PRDM2 (RIZ) is able to binds to the retinoblastoma protein (RB) and also Interacts with GATA3.