



# Recombinant Protein Technical Manual

## Recombinant Human OMGP/OMG Protein (aa 1-420, His Tag)(Active)

RPES4918

### Product Data:

**Product SKU:** RPES4918

**Size:** 20µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** P23515

### Protein Information:

**Molecular Mass:** 46 kDa

**AP Molecular Mass:** 12030 kDa

**Tag:** C-His

**Bio-activity:** Measured by the ability of the immobilized protein to support the adhesion of C6 Rat brain glial cells. Immobilized OMG (0.8 µg/ml, 100 µl/well) will mediate >20% C6 cell adhesion.

**Purity:** > 97 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**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 PBS, pH 7.4

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

**Application:**

**Synonyms:** OMGP

## Immunogen Information:

**Sequence:** Met 1-Asn 420

## Background:

Oligodendrocyte-myelin glycoprotein, also known as OMG and OMGP, is a cell membrane protein which contains eight LRR (leucine-rich) repeats. OMG / OMGP is a glycosylphosphatidylinositol-anchored protein expressed by neurons and oligodendrocytes in the central nervous system (CNS). OMG / OMGP is a cell adhesion molecule contributing to the interactive process required for myelination in the central nervous system. OMG / OMGP play roles in both the developing and adult central nervous system. OMG / OMGP participates in growth cone collapse and inhibition of neurite outgrowth through its interaction with NgR, the receptor for Nogo. This function requires its leucine-rich repeat domain, a highly conserved region in OMgp during mammal evolution. OMG / OMGP leucine-rich repeat domain is also implicated in the inhibition of cell proliferation. OMG / OMGP may also be involved in the formation and maintenance of myelin sheaths. Cell proliferation, neuronal sprouting and myelination are crucial processes involved in brain development and regeneration after injury.