Recombinant Protein Technical Manual

Recombinant Human OMGP/OMG Protein (aa 1-416, His Tag)(Active)

RPES4842

Product Data:

Product SKU: RPES4842

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 >15% 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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-Pro 416

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 participats 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.