MDGA1 (MAM domain-containing glycosylphosphatidylinositol anchor protein 1), also known as GMIM (GPI and MAM protein), glycosylphosphatidylinositol-MAM or NAMD3 (MAM domain-containing protein 3), is a 955 amino acid protein that plays an essential role in cortical neuron migration in the neocortex. Expressed in kidney, brain, skeletal muscle, heart and tumor tissue, MDGA1 localizes to the cell membrane as a GPI- and lipid-anchor. MDGA1 exists as 2 alternatively spliced isoforms and contains one fibronectin type-III domain, a MAM domain and 6 Ig-like (immunoglobulin-like) domains. The gene encoding MDGA1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson’s disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: MDGA1 (human) mapping to 6p21.2; Mda1 (mouse) mapping to 17 A3.3.

SOURCE
MDGA1 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MDGA1 of human origin.

STORAGE
Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT
Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Blocking peptide available for competition studies, sc-168569 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS
MDGA1 (G-15) is recommended for detection of MDGA1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non-cross-reactive with MDGA2.

MDGA1 (G-15) is also recommended for detection of MDGA1 in additional species, including equine, canine, bovine, porcine and avian. Suitable for use as control antibody for MDGA1 siRNA (h): sc-95567, MDGA1 siRNA (m): sc-149336, MDGA1 shRNA Plasmid (h): sc-95567-SH, MDGA1 shRNA Plasmid (m): sc-149336-SH, MDGA1 shRNA (h) Lentiviral Particles: sc-95567-V and MDGA1 shRNA (m) Lentiviral Particles: sc-149336-V.

Molecular Weight of MDGA1 isoforms: 106/107 kDa.
Positive Controls: MDGA1 (h): 293T Lysate: sc-172217.

RECOMMENDED SECONDARY REAGENTS
To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:1000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA

RESEARCH USE
For research use only, not for use in diagnostic procedures.

MDGA1 (G-15) sc-168569. Western blot analysis of MDGA1 expression in non-transfected: sc-117752 (A) and human MDGA1 transfected: sc-172217 (B) 293T whole cell lysates.