GENTAUR

DATA SHEET

Anti-MAGE-G1 / Necdin-like 2 antibody, rabbit serum (MG1)

74-114 100ul

MAGE-G1 (melanoma-associated antigen G1, also designated **necdin-like 2)** gene encodes a necdin homologous protein. **MAGE-G1** gene, similarly to necdin gene, has been mapped to the region of proximal chromosome 15q in human, which is subject to genomic imprinting and implicated in various human neurological and mental disorders (ref.1). From this finding it is suggested that **MAGE-G1** is involved in brain development, and its abnormality causes neurodevelopmental diseases, although its biochemical and functional features remain largely unknown. **MAGE-G1** has characteristics similar to those of necdin, which suppresses cell growth by inducing cell cycle arrest. **MAGE-G1,** like necdin, targets both the transcription factor E2F1 and p75 neutrophin receptor (p75NTR) to regulate cell viability during brain development (ref.2). An antibody (named MG1) against mouse **MAGE-G1** was raised in rabbit (ref.2).

Applications:

1. Western blotting (1/3,000-1/1,000) 2. Immunoprecipitation. 3. Immunoaffinity purification

Not tested for other applications

Immunogen: Recombinant MBT-fused mouse MAGE-G1 (aa 1-279).

Reactivity: Reacts with mouse, rat and human MAGE-G1.

Form: Antiserum added with 0.05% sodium azide.

Storage: Shipped at 4℃. Aliquot and store at -20℃

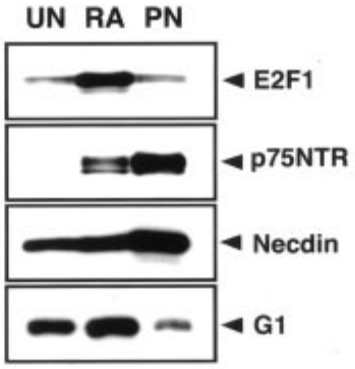
Data Link: Swiss-Prot Q9CPR8 (mouse), Q96MG7 (human)

References: **This antibody was produced and used in ref.2.**

1. Chibuk TK *et al* (2001) "A necdin/MAGE-like gene in the chromosome 15 autism susceptibility region: expression, imprinting, and mapping of the human and mouse orthologues." *BMC Genet* **2**: 22 PMID: 11782285
2. Kuwako K *et al.* (2004) "Necdin-related MAGE proteins differentially interact with the E2F1 transcription factor and the p75 neutrophin receptor." *J Biol Chem* **279**: 1703-1712 PMID: 14593116

Related products: #74-100 anti-Necdin antibody. 74-112 anti-MAGE-D1 / Dlxin-1 / NRAGE antibody.

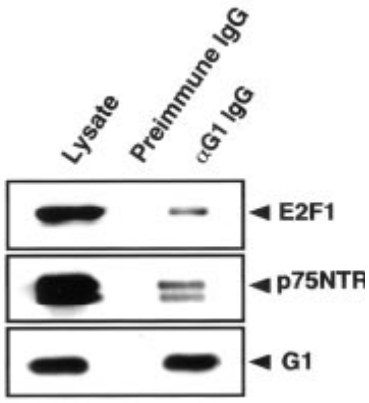
Fig.1 Immunoblotting of MAGE-G1 with this antibody (ref.2).



E2F1, p75NTR, necdin, and MAGE-G1 (G1) were analyzed by Western blotting in whole lysates of P19 cells at different stages of neural differentiation. UN, undifferentiated P19 cells; RA, aggregated cells treated with retinoic acid; PN, enriched postmitotic neurons.

The result revealed that P19 embryonal carcinoma cells express necdin (43 kDa), MAGE-G1 (32 kDa), E2F1 (58 kDa), and p75NTR (68 and 75 kDa) during the course of neuronal differentiation. The level of MAGE-G1 was the highest in retinoic acid-treated P19 cells.

Fig.2 Immunoaffinity purification with anti-MAGE-G1 IgG (ref.2). Dtection of endogenous complexes of MAGE-G1 with E2F1 and p75NTR.



The lysate from retinoic acid-treated P19 cells was applied to immunoaffinity columns of anti-MAGE-G1 IgG (αG1 IgG) and preimmune IgG (Preimmune IgG). Bound proteins were immunoblotted for E2F1, p75NTR, and MAGE-G1 (G1).

MAGE-G1 endogenously forms stable complexes with E2F1 and p75NTR in differentiated P19 cells.