

Product datasheet for **TA326480**

GRP78 (HSPA5) Mouse Monoclonal Antibody [Clone ID: 6H4.2G7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	6H4.2G7
Applications:	IHC, WB
Recommended Dilution:	WB: 1:2000
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	His-tagged human GRP78
Formulation:	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Concentration:	lot specific
Purification:	Protein G Purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	heat shock protein family A (Hsp70) member 5
Database Link:	NP_005338 Entrez Gene 3309 Human P11021



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Background:

GRP78 is a ubiquitously expressed, 78-kDa glucose-regulated protein, and is commonly referred to as an immunoglobulin chain binding protein (BiP). The BiP proteins are categorized as stress response proteins because they play an important role in the proper folding and assembly of nascent protein and in the scavenging of misfolded proteins in the endoplasmic reticulum lumen. Translation of BiP is directed by an internal ribosomal entry site (IRES) in the 5' nontranslated region of the BiP mRNA. BiP IRES activity increases when cells are heat stressed. GRP78 is also critical for maintenance of cell homeostasis and the prevention of apoptosis. Luo et al. have provided findings that suggest GRP78 is essential for embryonic cell growth and pluripotent cell survival. In terms of diseases, GRP78 has been shown to be a reliable biomarker of hypoglycemia, to serve a neuroprotective function in neurons exposed to glutamate and oxidative stress, and its protein levels are reduced in the brains of Alzheimer's patients. Also, the induction of the GRP78 protein that results in severe glucose and oxygen deprivation could possibly lead to drug resistance to anti-tumor drugs.

Synonyms:

BIP; GRP78; HEL-S-89n; MIF2

Note:

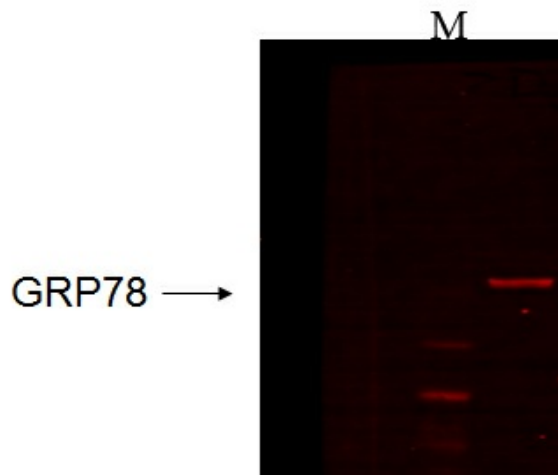
Detects a protein with a mass of ~78kDa corresponding to GRP78

Protein Families:

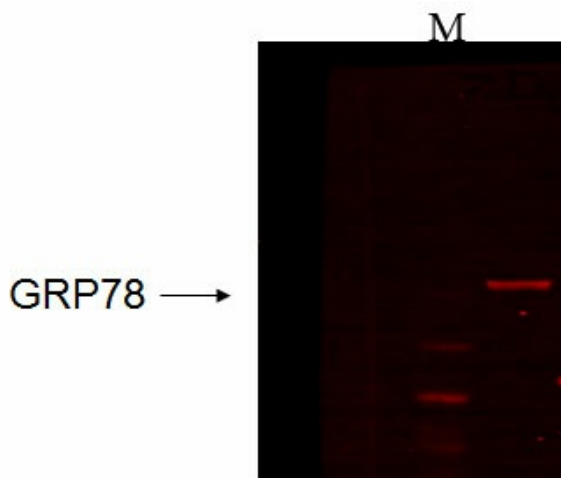
Druggable Genome

Protein Pathways:

Antigen processing and presentation, Prion diseases

Product images:

0.5 ug/ml of [TA309343] was sufficient for detection of Grp78 in 10ug of HeLa cell lysate by ECL immunoblot analysis.



IHC analysis of Grp78 using the antibody