

Product datasheet for **TA384464**

GRP78 (HSPA5) Rabbit Monoclonal Antibody [Clone ID: R03-5B3]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R03-5B3
Applications:	IHC, WB
Recommended Dilution:	WB: 1/1000-1/5000 IHC: 1/50-1/200
Reactivity:	Human, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human GRP78 BiP
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 72 kDa; Observed MW: 78 kDa
Gene Name:	heat shock protein family A (Hsp70) member 5
Database Link:	Entrez Gene 3309 Human P11021



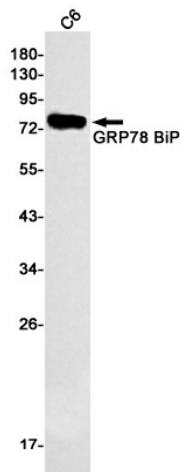
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Background:

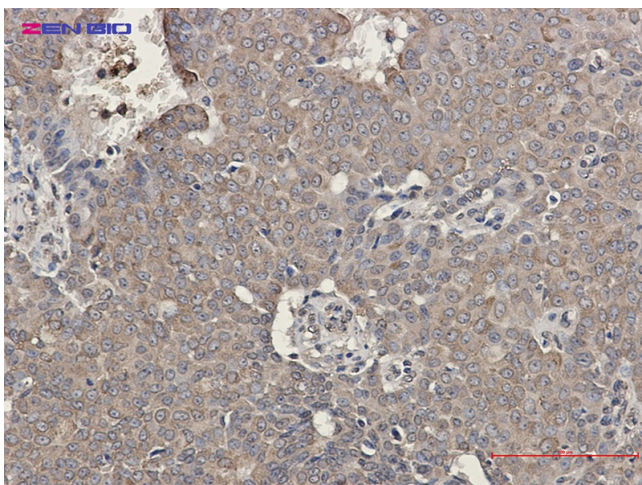
Swiss-Prot Acc.P11021.Endoplasmic reticulum chaperone that plays a key role in protein folding and quality control in the endoplasmic reticulum lumen (PubMed:2294010, PubMed:23769672, PubMed:23990668, PubMed:28332555). Involved in the correct folding of proteins and degradation of misfolded proteins via its interaction with DNAJC10/ERdj5, probably to facilitate the release of DNAJC10/ERdj5 from its substrate . Acts as a key repressor of the ERN1/IRE1-mediated unfolded protein response (UPR) (PubMed:1550958, PubMed:19538957). In the unstressed endoplasmic reticulum, recruited by DNAJB9/ERdj4 to the luminal region of ERN1/IRE1, leading to disrupt the dimerization of ERN1/IRE1, thereby inactivating ERN1/IRE1 . Accumulation of misfolded protein in the endoplasmic reticulum causes release of HSPA5/BiP from ERN1/IRE1, allowing homodimerization and subsequent activation of ERN1/IRE1 . Plays an auxiliary role in post-translational transport of small presecretory proteins across endoplasmic reticulum (ER). May function as an allosteric modulator for SEC61 channel-forming translocon complex, likely cooperating with SEC62 to enable the productive insertion of these precursors into SEC61 channel. Appears to specifically regulate translocation of precursors having inhibitory residues in their mature region that weaken channel gating.

Synonyms:

BiP; FLJ26106; GRP78; MIF2

Product images:

Western blot detection of GRP78 BiP in C6 cell lysates using GRP78 BiP Rabbit mAb(1:1000 diluted).Predicted band size:72kDa.Observed band size:78kDa.



Immunohistochemistry of GRP78 BiP in paraffin-embedded Human breast cancer tissue using GRP78 BiP Rabbit mAb at dilution 1/50