

Product datasheet for **AM08058PU-N**

Hspa5 Rat Monoclonal Antibody [Clone ID: 76-E6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	76-E6
Applications:	ELISA, FN, WB
Recommended Dilution:	ELISA. (Ref.6) Western blotting. (Ref.6,8) Studies of Immunoglobulin assembly and secretion. Ref.1,2)
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	This antibody is specific to BiP (Immunoglobulin heavy chain binding protein, Mr 78 kDa). Monoclonal antibody 76-E6 recognizes a conserved epitope localized within the region of amino acids 497 to 581 of BiP. (Ref.8)
Formulation:	100 mM Borate Buffered Saline, pH 8.2. No preservatives or amine-containing buffer salts added. State: Purified State: Liquid purified Ig fraction.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	heat shock protein 5
Database Link:	Entrez Gene 14828 Mouse P20029



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Background:

The immunoglobulin heavy chain binding protein BiP (Binding Protein) is a member of the hsp70 family of heat shock proteins, and is identical to the glucose regulated protein grp78. (Ref.2) While BiP was originally described for its function in B cells, it is now known to be distributed in a variety of tissues, if not ubiquitous. The highly conserved hsp 70 proteins have an essential physiological role in stress responses and as *Molecular Chaperones* which are responsible for a variety of functions such as protein transport, prevention of protein toxicity and direction of protein folding. (Ref.1-5) With regard to its immunological role, BiP is a component of the endoplasmic reticulum and binds free intracellular heavy chains in nonsecreting pre-B cell lines (μ +,L-) or incompletely assembled Ig precursors in H+L+ secreting hybridomas and myelomas. In the absence of light chain synthesis, heavy chains remain associated with BiP and are not secreted. BiP is an ATP binding protein and the dissociation of the BiP-heavy chain complex is probably driven by the ATPase activity attributed to BiP. (Ref.7)

Synonyms:

78 kDa glucose-regulated protein, Heat shock 70 kDa protein 5, BiP