# Product information

## Monoclonal anti-human BIP antibody (clone 3D2)

**Mouse $IgG_1$, κ**

**Cat. No. IBATGA0320**

**Immunogen:** Recombinant human BIP (20-650aa) purified from *E. coli*

**NCBI Accession No.:** NP_005338

**Isotype:** Mouse $IgG_1$ heavy chain and κ light chain

**Clone:** Anti-human BIP mAb, clone AT3D2, is derived from hybridization of mouse F0 myeloma cells with spleen cells from BALB/c mice immunized with a recombinant human BIP protein.

**Description**: Binding immunoglobulin protein (BIP) also known as 78kDa glucose-regulated protein(GRP-78) or heat shock 70kDa protein 5(HSPA5) is a HSP70 molecular chaperone located in the lumen of the endoplasmic reticulum(ER) that binds newly synthesized proteins as they are translocated into the ER, and maintains them in a state competent for subsequent folding and oligomerization. BIP is also an essential component of the translocation machinery, as well as playing a role in retrograde transport across the ER membrane of aberrant proteins destined for degradation by the proteasome. BIP is an abundant protein under all growth conditions, but its synthesis is markedly induced under conditions that lead to the accumulation of unfolded polypeptides in the ER.

**Concentration:** 1 mg/ml

**Form:** Liquid. In Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% Glycerol

**Storage:** Can be stored at +4C. For long term storage, aliquot and store at -20C. Avoid repeated freezing and thawing cycles.

**Usage:** The antibody has been tested by ELISA, Western blot analysis, Flow cytometry and ICC/IF to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

**Application:** ELISA, WB, Flow cytometry, ICC/IF



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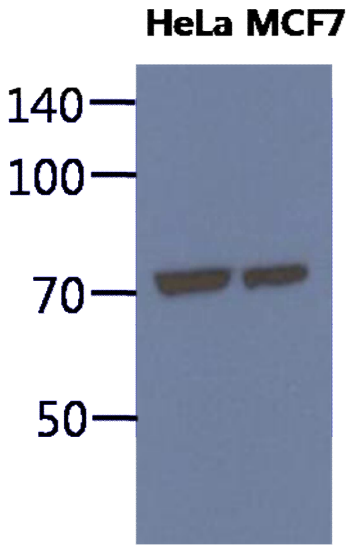
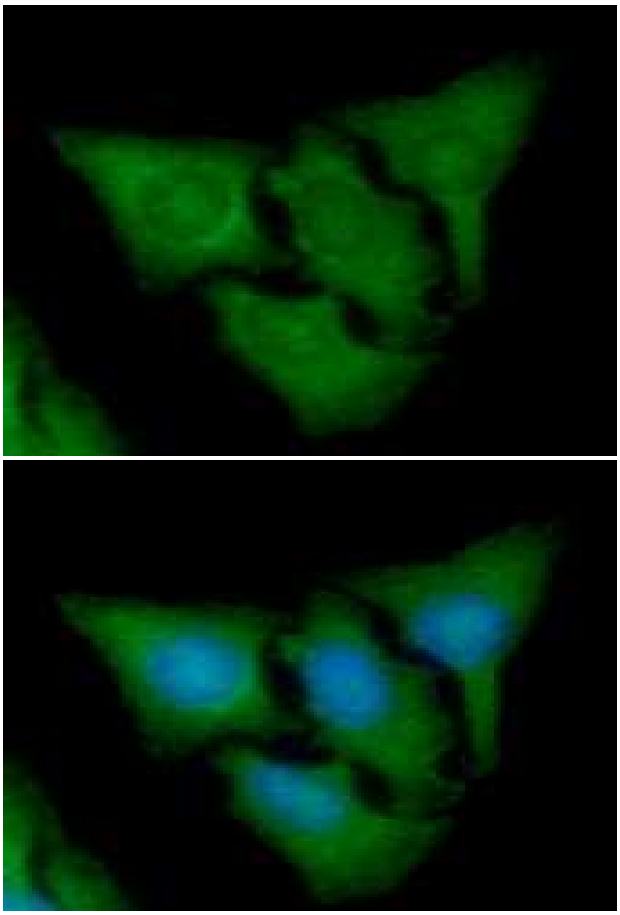
**Western blot analysis**

The cell lysates of HeLa and MCF7 (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human BIP antibody (1:1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.




**ICC/IF analysis**

ICC/IF analysis of BIP in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human BIP antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



**For research use only. This product is not intended or approved for human, diagnostics or veterinary use.**

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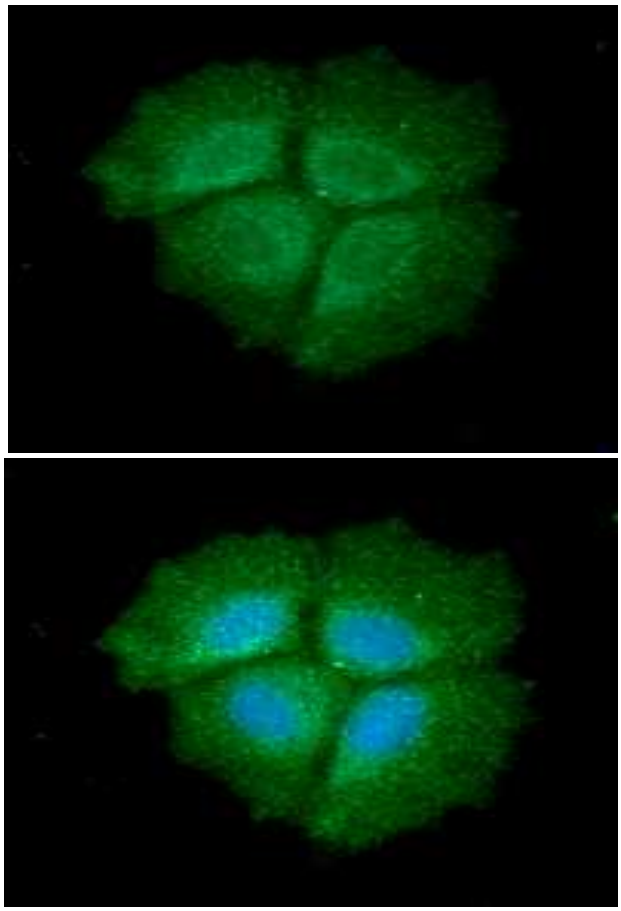
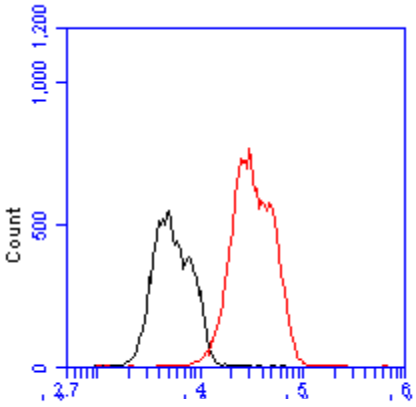
**ICC/IF analysis**

ICC/IF analysis of BIP in Hep3B cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human BIP antibody (1:100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



**Flow cytometry**

Flow cytometry analysis of BIP in Hep3B cell line, staining at 2-5ug for 1x10$^6$cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).




**Alexa488-anti-BIP**

**General references:** Ting. J., *et al*. (1988) *DNA* **7(4):** 275–86

Hendershot. L.M., *et al*. (1994) *Genomics* **20(2):** 281–284



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