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# Product datasheet for TA301448

## HMG1 (HMGB1) Rabbit Polyclonal Antibody

### Product data:

| | |
|---|---|
| **Product Type:** | Primary Antibodies |
| **Applications:** | ELISA, FC, ICC/IF, IHC, Simple Western, WB |
| **Recommended Dilution:** | Simple Western: 1:2000, Flow Cytometry: 1:100, Flow (Intracellular), ELISA, Western Blot: 0.5-1.0 ug/ml, Immunocytochemistry/ Immunofluorescence: 0.05 ug/ml, Immunohistochemistry: 1:100-1:250, Immunohistochemistry-Paraffin: 1:100-1:250, Knockdown Validated |
| **Reactivity:** | Human, Mouse, Dog, Bovine, Hamster, Rat |
| **Host:** | Rabbit |
| **Isotype:** | IgG |
| **Clonality:** | Polyclonal |
| **Immunogen:** | A synthetic peptide made to an internal portion of the human HMGB1 protein sequence (between residues 100-200). [UniProt #P09429] |
| **Formulation:** | Tris-glycine, 150mM NaCl and 0.1% sodium azide |
| **Purification:** | Affinity purified |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at -20°C as received. |
| **Stability:** | Stable for 12 months from date of receipt. |
| **Gene Name:** | high mobility group box 1 |
| **Database Link:** | NP_002119<br>Entrez Gene 15289 MouseEntrez Gene 25459 RatEntrez Gene 403170 DogEntrez Gene 3146 Human<br>P09429 |

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**Background:** HMGB1 and HMGB2 are part of the chromatin non-histone high mobility group proteins 1 and 2. These proteins (containing multiple HMG-boxes) are conserved domains of 80 amino acids which mediate the DNA binding of many proteins. HMG box domains recognize DNA structure. Both HMGB1 and HMGB2 contain an N-terminal HMG box, a central HMG box, and an acidic carboxy terminus. The acidic tails of these proteins contain multiple serine residues which match the phosphorylation consensus sites of casein kinase II, and phosphorylation of this domain appears to be important for proper functioning of these proteins. HMGB1 and HMGB2 have been shown to facilitate the binding of various sequence-specific transcription factors to their respective DNA binding sites. They may also serve as architectural factors that recognize and mediate DNA structural changes that accompany various events such as DNA repair, transcription, and replication.

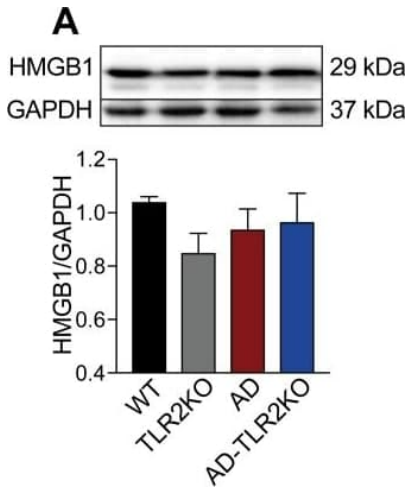
**Synonyms:** HMG1; HMG3; SBP-1

**Protein Families:** Druggable Genome, Stem cell - Pluripotency, Transcription Factors

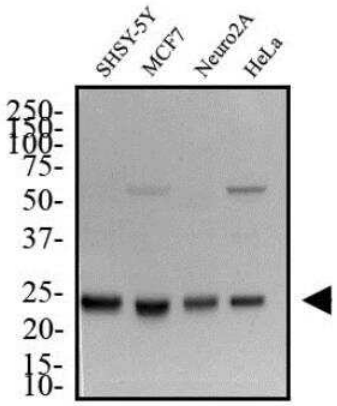
**Protein Pathways:** Base excision repair

## Product images:

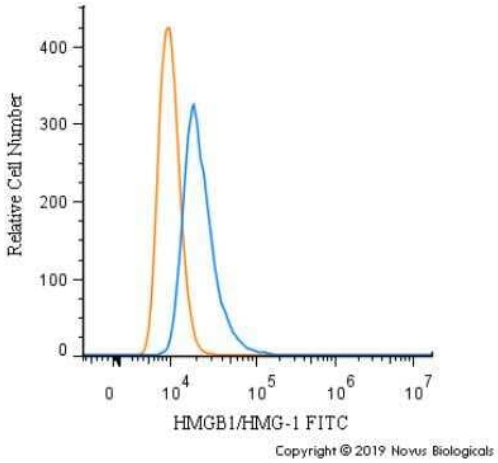

Simple Western: HMGB1/HMG-1 Antibody TA301448 - Image shows a specific band for HMGB1 in 0.05 mg/mL of Jurkat lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



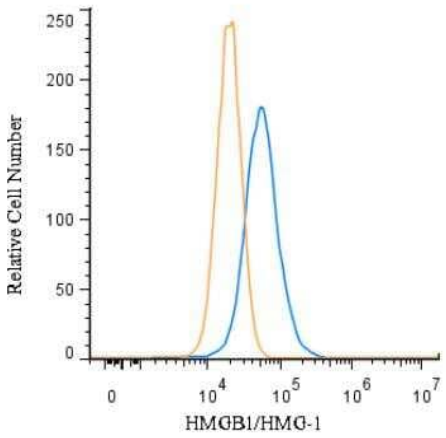

Expression of endogenous ligands for TLR2. (A) Expression of biglycan in AD-TLR2KO mice increased significantly compared with that in WT, AD, and TLR2KO mice ($p<0.05$). (B) HMGB1 in the four groups did not show a significant difference ($p>0.05$).



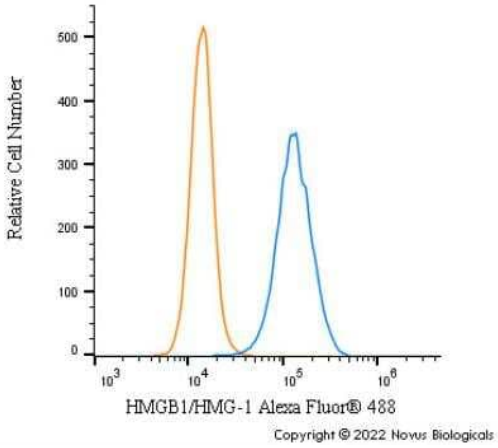

Western Blot: HMGB1/HMG-1 Antibody TA301448 - Total protein from SHSY-5Y, MCF7, Neuro2A and HeLa was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/mL anti-HMGB1 in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.



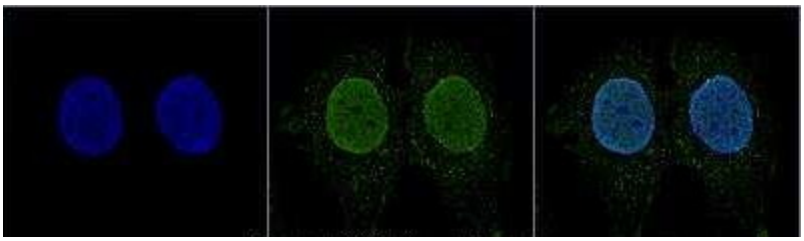

Flow Cytometry: HMGB1/HMG-1 Antibody TA301448 - An intracellular stain was performed on RH-30 cells with TA301448F (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 10 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to FITC.



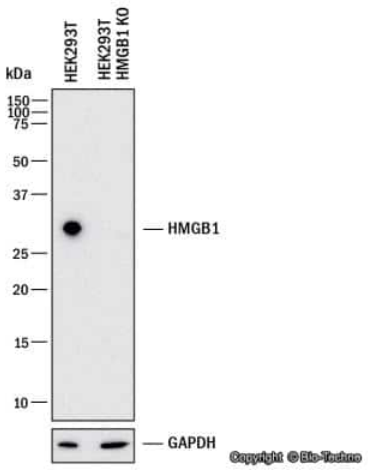

Flow (Intracellular): HMGB1/HMG-1 Antibody TA301448 - An intracellular stain was performed on HeLa with TA301448 and a matched isotype control. Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody.



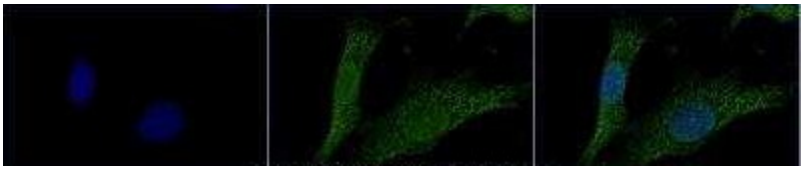

Flow Cytometry: HMGB1/HMG-1 Antibody TA301448 - An intracellular stain was performed on HeLa cells with HMGB1/HMG-1 Antibody TA301448AF488 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 488.



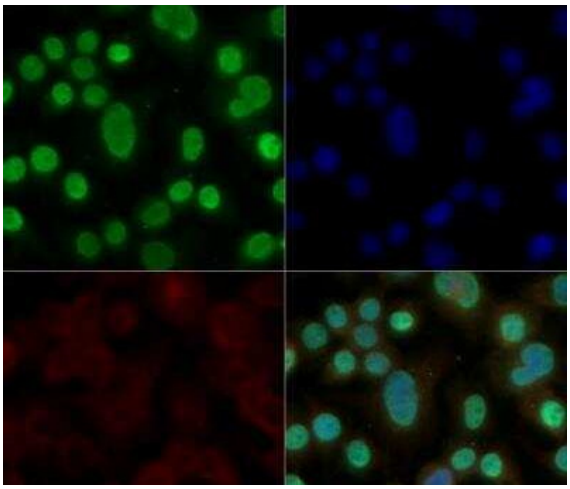
Immunocytochemistry/Immunofluorescence: HMGB1/HMG-1 Antibody TA301448 - MCF7 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-HMGB1/HMG-1 Antibody TA301448 at 1 ug/ml for overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



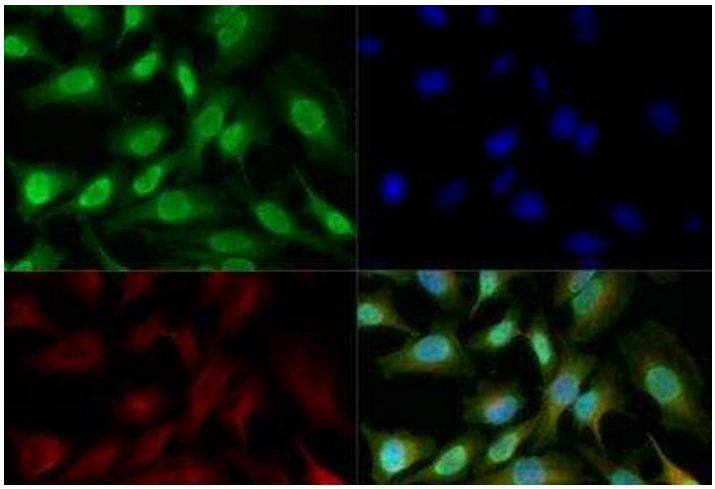

Knockdown Validated: HMGB1/HMG-1 Antibody TA301448 - Western blot shows lysates of HEK293T human embryonic kidney parental cell line and HMGB1 knockout (KO) HEK293T cell line. PVDF membrane was probed with 1.0 ug/ml of Rabbit Anti-Human HMGB1 Polyclonal Antibody (Catalog # TA301448) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog #HAF008). Specific band was detected for HMGB1 at approximately 30 kDa (as indicated) in the parental HEK293T cell line, but is not detectable in the knockout HEK293T cell line. This experiment was conducted under reducing conditions.



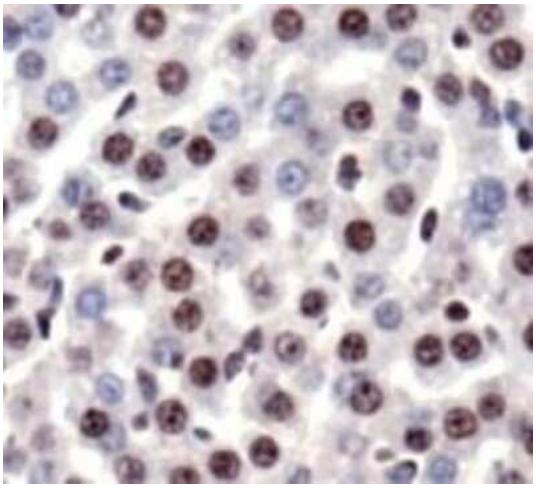
Immunocytochemistry/Immunofluorescence: HMGB1/HMG-1 Antibody TA301448 - NIH3T3 cells were fixed in 4% paraformaldehyde for 10 minutes and permeabilized in 0.5% Triton X-100 in PBS for 5 minutes. The cells were incubated with anti-HMGB1/HMG-1 Antibody TA301448 at 1 ug/ml for overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:1000 dilution for 60 minutes. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 100X objective and digitally deconvolved.



Immunocytochemistry/Immunofluorescence: HMGB1/HMG-1 Antibody TA301448 - Neuro2a cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-HMGB1 at 5 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunocytochemistry/Immunofluorescence: HMGB1/HMG-1 Antibody TA301448 - HeLa cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X TBS + 0.5% Triton-X100. The cells were incubated with anti-HMGB1 TA301448 at a 1:200 dilution overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) [NB100-690] was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.



Immunohistochemistry-Paraffin: HMGB1/HMG-1 Antibody TA301448 - Staining of HMGB1 in mouse liver using TA301448.