



Recombinant Version of Classic Clone

Cat nr AE00329

Product Datasheet

Rabbit Recombinant Antibody, 6A7R to:

BAX (active monomer), BCL2L4

Apoptosis regulator BAX; BCL2 associated X, apoptosis regulator; Bcl-2-like protein 4; Bcl2-L-4; BCL2L4

Cellular localization Mitochondrion

Official Symbol (Gene) BAX

GenelD 581

SwissProt Q07812

Confirmed Applications FC, ICC, IP

Positive controls human myeloma, mouse embryonal fibroblasts, mouse thymocytes, MN9D

Aeonian Rating© 100

Purification By Protein A from bioreactor concentrate

Formulation 1 mg IgG/ml in PBS with 0.02% Proclin 300

Amount 200ug 1000ug

Isotype Rabbit IgG, kappa, chimeric version of mouse IgG1 clone 6A7

Confirmed species reactivity Human, Mouse, Rat

Immunogen Synthetic peptide (C-GPTSSEQIMKTGA), corresponding to aa12-24 according to NP_001278357.1, conjugated to KLH.

Epitope aa12-24

Storage instructions Avoid repeated freeze/thaw cycles. For long term storage, keep small aliquots at -20C or -80C and keep one aliquot at 4C for daily experimentations. Azide will preserve antibody at 4C for 6-12 months, when kept away from direct sun light.

Expiration Integrity warranted for 24 months after purchase when handled and stored according to instructions, see below.

Warranty This product is only warranted for the specifications as described in this product sheet and only when the product is handled and stored according to instructions. User should validate this antibody in the application and tissue/cell type as required, after confirmation of integrity upon receipt is obtained by reproducing the performance as described below. Should such confirmation not be attempted, any warranty is void. In case of non-conformance, user needs to contact us immediately for replacement or refund.

Liability This product is for in vitro research use only. Any other applications, such as diagnostics or therapeutics, or in vivo experiments, and the validation of this product therein, are solely at the responsibility of the buyer/user.

Product performance see next pages

Product data:

Immunoassays

Flow Cytometry (FC):

The original clone 6A7 was successfully used in etoposide-treated mouse embryonic fibroblast cells.

Dengler MA, Gibson L, Adams JM. BAX mitochondrial integration is regulated allosterically by its $\alpha 1$ - $\alpha 2$ loop. *Cell Death Differ.* 2021 Jun 16. doi: 10.1038/s41418-021-00815-x. Epub ahead of print. PMID: 34135480.

ImmunoCytoChemistry (ICC):

The original clone 6A7 was successfully used to detect monomeric active BAX in MN9D cells.

Chung Y, Kim Y, Yun N, Oh YJ. Dysregulated autophagy is linked to BAX oligomerization and subsequent cytochrome c release in 6-hydroxydopamine-treated neuronal cells. *Biochem Biophys Res Commun.* 2021 Apr 9;548:20-26. doi: 10.1016/j.bbrc.2021.02.045. Epub 2021 Feb 22. PMID: 33631669.

Immunoprecipitation (IP):

The original clone 6A7 was successfully used when coupled to cephrose beads for immunoprecipitation from murine thymocyte lysates in the presence of Triton X100 or NP40. Without TX100 or NP40, IP does not work.

Hsu YT, Youle RJ. Nonionic detergents induce dimerization among members of the Bcl-2 family. *J Biol Chem.* 1997 May 23;272(21):13829-34. doi: 10.1074/jbc.272.21.13829. PMID: 9153240.

Biological activity

Monomeric specificity:

The original clone 6A7 binds in the presence of non-ionic detergent exclusively to the monomer of BAX, and not to Bax complexed with either Bcl-XL or Bcl-2.

Hsu YT, Youle RJ. Nonionic detergents induce dimerization among members of the Bcl-2 family. *J Biol Chem.* 1997 May 23;272(21):13829-34. doi: 10.1074/jbc.272.21.13829. PMID: 9153240.

6A7-specific most recent literature:

Al Rahim M, Thatipamula S, Pasinetti GM, Hossain MA. Neuronal Pentraxin 1 Promotes Hypoxic-Ischemic Neuronal Injury by Impairing Mitochondrial Biogenesis via Interactions With Active Bax[6A7] and Mitochondrial Hexokinase II. *ASN Neuro.* 2021 Jan-Dec;13:17590914211012888. doi: 10.1177/17590914211012888. PMID: 34098747.

Blombery P, Lew TE, Dengler MA, Thompson ER, Lin VS, Chen X, Nguyen T, Panigrahi A, Handunnetti SM, Carney D, Westerman DA, Tam CS, Adams JM, Wei AH, Huang DCS, Seymour JF, Roberts A, Anderson MA. Clonal hematopoiesis, myeloid disorders and BAX-mutated myelopoiesis in patients receiving venetoclax for CLL. *Blood.* 2021 Sep 1;blood.2021012775. doi: 10.1182/blood.2021012775. PMID: 34469514.

Seiller C, Maiga S, Touzeau C, Bellanger C, Kervoëlen C, Descamps G, Maillet L, Moreau P, Pellat-Deceunynck C, Gomez-Bougie P, Amiot M. Dual targeting of BCL2 and MCL1 rescues myeloma cells resistant to BCL2 and MCL1 inhibitors associated with the formation of BAX/BAK hetero-

complexes. *Cell Death Dis.* 2020 May 5;11(5):316. doi: 10.1038/s41419-020-2505-1. PMID:

Wang TS, Coppens I, Saorin A, Brady NR, Hamacher-Brady A. Endolysosomal Targeting of Mitochondria Is Integral to BAX-Mediated Mitochondrial Permeabilization during Apoptosis Signaling. *Dev Cell.* 2020 Jun 22;53(6):627-645.e7. doi: 10.1016/j.devcel.2020.05.014. PMID:

Lindenboim L, Grozki D, Amsalem-Zafran AR, Peña-Blanco A, Gundersen GG, Borner C, Hodzic D, Garcia-Sáez AJ, Worman HJ, Stein R. Apoptotic stress induces Bax-dependent, caspase-independent redistribution of LINC complex nesprins. *Cell Death Discov.* 2020 Sep 18;6(1):90. doi: 10.1038/s41420-020-00327-6. PMID: 33024575.