

PRODUCT INFORMATION



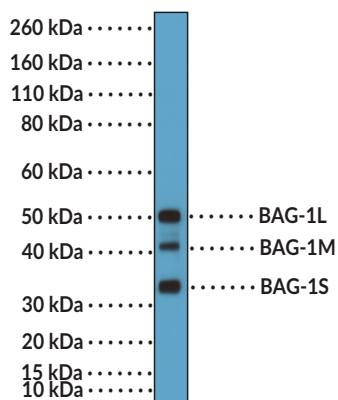
BAG-1 Rabbit Monoclonal Antibody (Clone RM356)

Item No. 32306

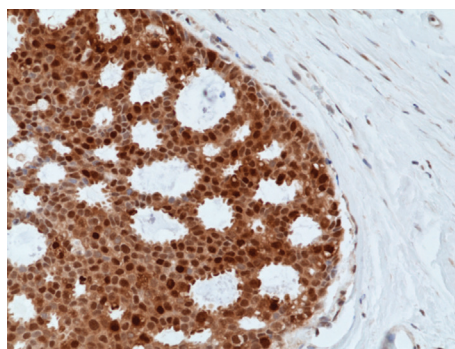
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	BAG Family Molecular Chaperone Regulator 1, Bcl-2-associated Athanogene 1
Immunogen:	Peptide corresponding to human BAG-1
Cross Reactivity:	(+) BAG-1S, BAG-1M, BAG-1L
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM356
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:500-1:1,000 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



WB of HeLa cell lysate using BAG-1 Rabbit Monoclonal Antibody (Clone RM356) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast cancer tissue using BAG-1 Rabbit Monoclonal Antibody (Clone RM356) at a dilution of 1:500.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

Bcl-2-associated athanogene 1 (BAG-1) is a co-chaperone protein and member of the BAG family of proteins that has anti-apoptotic activity.¹ It is composed of an N-terminal ubiquitin-like (UBL) domain and a conserved C-terminal BAG domain. BAG-1 has four isoforms, with the short (BAG-1S), medium (BAG-1M), long (BAG-1L) isoforms generated *via* alternative translation initiation sites and a BAG-1 isoform generated by post-translational modification.² BAG-1L contains a nuclear localization signal in addition to the UBL and BAG domains and is the only isoform not found primarily in the cytoplasm.¹ All BAG-1 isoforms are expressed ubiquitously and interact the anti-apoptotic protein Bcl-2 to increase its activity.^{1,2} Under cell stress conditions, BAG-1 binds to the ATPase domain of Hsc70 or Hsp70 with its BAG domain and inhibits DNA synthesis and cell cycling. BAG-1 interacts with additional signaling proteins, including Raf-1, which activates ERK signaling and induces cell proliferation.¹ Protein levels of BAG-1 are increased in patient-derived invasive breast carcinoma tissue but, in contrast, its expression is positively associated with increased survival in early-stage breast cancer patients.^{3,4} Cayman's BAG-1 Rabbit Monoclonal Antibody (Clone RM356) can be used for immunohistochemistry (IHC) and Western blot (WB) applications. The antibody recognizes the short, medium, and long isoforms of BAG-1 from human samples.

References

1. Doong, H., Vrailas, A., and Kohn, E.C. What's in the 'BAG'? - a functional domain analysis of the BAG-family proteins. *Cancer Lett.* **188(1-2)**, 25-32 (2002).
2. Mariotto, E., Viola, G., Zanon, C., *et al.* A BAG's life: Every connection matters in cancer. *Pharmacol. Ther.* **209**, 107498 (2020).
3. Tang, S.-C., Shaheta, N., Chernenko, G., *et al.* Expression of BAG-1 in invasive breast carcinomas. *J. Clin. Oncol.* **17(6)**, 1710-1719 (1999).
4. Turner, B.C., Krajewski, S., Krajewski, M., *et al.* BAG-1: A novel biomarker predicting long-term survival in early-stage breast cancer. *J. Clin. Oncol.* **19(4)**, 992-1000 (2001).