Product Datasheet

Bmi1 Antibody

Catalog No: CY6591 Reactivity: Human Rat

Isotype: Rabbit IgG Applications: WB IHC ICC/IF

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Information

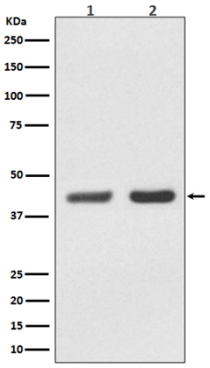
UniProt ID: P35226
All Names: BMI1 ; Polycomb complex protein BMI 1; RING finger protein 51; RNF51; PCGF4;
Form: Liquid
Storage instructions: Store at +4˚ C short term. Store at -20˚ C long term. Avoid freeze / thaw cycle.
Storage buffer: pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity: Affinity-chromatography
Immunogen: A synthesized peptide
Molecular Wt.: 40 kDa

Application

WB 1:500~1:2000
IHC 1:50~1:200
ICC/IF 1:50~1:200

Background

The polycomb group (PcG) of proteins contributes to the maintenance of cell identity, stem cell self-renewal, cell cycle regulation, and oncogenesis by maintaining the silenced state of genes that promote cell lineage specification, cell death, and cell-cycle arrest. PcG proteins exist in two complexes that cooperate to maintain long-term gene silencing through epigenetic chromatin modifications. The first complex, EED-EZH2, is recruited to genes by DNA-binding transcription factors and methylates histone H3 on Lys27. This histone methyl-transferase activity requires the Ezh2, Eed, and Suz12 subunits of the complex. Histone H3 methylation at Lys27 facilitates the recruitment of the second complex, PRC1, which ubiquitinylates histone H2A on Lys119. Bmi1 is a component of the PRC1 complex, which together with Ring1 strongly enhances the E3 ubiquitin ligase activity of the Ring2 catalytic subunit. Bmi1 plays an important role in the regulation of cell proliferation and senescence through repression of the p16 INK4A and p19 ARF genes and is required for maintenance of adult hematopoietic and neural stem cells.



Western blot analysis of Bmi1 expression in (1) K562 cell lysate; (2) PC-12 cell lysate.