

Rabbit Anti-MLF1/MLF2 /AP Conjugated antibody

SL9179R-AP

Product Name	Anti-MLF1/MLF2 /AP
Chinese Name	碱性磷酸酶（AP）标记的髓细胞性白血病蛋白 1 抗体
Alias	Hls7; MLF1; MLF2; MLF3; MLF1_HUMAN; Myelodysplasia myeloid leukemia factor 1; Myelodysplasia-myeloid leukemia factor 1; Myeloid leukemia factor 1; myeloid leukemia factor 1 variant 1; myeloid leukemia factor 1 variant 2; myeloid leukemia factor 1 variant 3.
Research Area	Tumour Cardiovascular Cell biology immunology Chromatin and nuclear signals Signal transduction Stem cells Cyclin Cell differentiation Cell type markers
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat(predicted:Pig,Cow,Sheep) IHC-P=1:100-500,IHC-F=1:100-500
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	31kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human MLF1/2/3
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Product Detail	background: Involved in lineage commitment of primary hemopoietic progenitors by

restricting erythroid formation and enhancing myeloid formation. Interferes with erythropoietin-induced erythroid terminal differentiation by preventing cells from exiting the cell cycle through suppression of CDKN1B/p27Kip1 levels. Suppresses RFW2/COP1 activity via CSN3 which activates p53 and induces cell cycle arrest. Binds DNA and affects the expression of a number of genes so may function as a transcription factor in the nucleus.

Function:

Involved in lineage commitment of primary hemopoietic progenitors by restricting erythroid formation and enhancing myeloid formation. Interferes with erythropoietin-induced erythroid terminal differentiation by preventing cells from exiting the cell cycle through suppression of CDKN1B/p27Kip1 levels. Suppresses RFW2/COP1 activity via CSN3 which activates p53 and induces cell cycle arrest. Binds DNA and affects the expression of a number of genes so may function as a transcription factor in the nucleus.

Subunit:

Interacts with MLF1IP. Also interacts with NRB1/MADM, YWHAZ/14-3-3-zeta and HNRPUL2/MANP. NRB1 recruits a serine kinase which phosphorylates both itself and MLF1. Phosphorylated MLF1 then binds to YWHAZ and is retained in the cytoplasm. Retained in the nucleus by binding to HNRPUL2. Binds to COPS3/CSN3 which is required for suppression of RFW2 and activation of p53.

Subcellular Location:

Cytoplasm. Nucleus. In non-hematopoietic cells, resides primarily in the cytoplasm with some punctate nuclear localization. Shuttles between the cytoplasm and nucleus. In hematopoietic cells, located preferentially in the nucleus. Found in the nucleolus when fused to NPM.

Tissue Specificity:

Most abundant in testis, ovary, skeletal muscle, heart, kidney and colon. Low expression in spleen, thymus and peripheral blood leukocytes.

Post-translational modifications:

Phosphorylation is required for binding to YWHAZ (By similarity).

DISEASE:

Note=A chromosomal aberration involving MLF1 is a cause of myelodysplastic syndrome (MDS). Translocation t(3;5)(q25.1;q34) with NPM1/NPM.

Similarity:

Belongs to the MLF family.

Database links:

[Entrez Gene: 79682](#) Human

[Entrez Gene: 71876](#) Mouse

[Entrez Gene: 306464](#) Rat

[Omid: 611511](#) Human

[SwissProt: Q2KIW5](#) Cow

[SwissProt: Q71F23](#) Human

[SwissProt: Q8C4M7](#) Mouse

[SwissProt: Q4V8G7](#) Rat

[Unigene: 575032](#) Human

[Unigene: 217385](#) Mouse

[Unigene: 22108](#) Mouse

[Unigene: 128609](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.