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Rabbit Anti-BANF1 antibody

SL12571R

Product Name:	BANF1
Chinese Name:	障碍自整合蛋白BAF抗体
Alias:	BAF; BAF_HUMAN; BANF 1; BANF1; Barrier to autointegration factor 1; Barrier to autointegration factor; Barrier-to-autointegration factor; BCRG 1; BCRG1; BCRP 1; BCRP1; Breakpoint cluster region protein 1; D14S1460; MGC111161.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	10kDa
Cellular localization:	The nucleuscytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human BANF1/BAF:21-89/89
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% 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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Barrier-to-autointegration factor (BAF) binds non-specifically to double stranded DNA, possibly to play a role in tissue- or cell type-specific gene expression by interacting with different homeodomain transcription factors. BAF compresses chromatin structure and interacts with the LEM domain of nuclear proteins to play a crucial role in membrane recruitment and chromatin decondensation during nuclear assembly.

	Additionally, retroviruses like HIV-1 incorporate BAF from host cells into preintegration complexes (PICs) to prevent autointegration of retroviral DNA and thereby promote integration of retroviral DNA into the host chromosome. **Function:** Plays fundamental roles in nuclear assembly, chromatin organization, gene expression and gonad development. May potently compress chromatin structure and be involved in membrane recruitment and chromatin decondensation during nuclear assembly. Contains 2 non-specific dsDNA-binding sites which may promote DNA cross-bridging. Exploited by retroviruses for inhibiting self-destructing autointegration of retroviral DNA, thereby promoting integration of viral DNA into the host chromosome. EMD and BAF are cooperative cofactors of HIV-1 infection. Association of EMD with the viral DNA requires the presence of BAF and viral integrase. The association of viral DNA with chromatin requires the presence of BAF and EMD. **Subunit:** Homodimer. Heterodimerizes with BAFL. Interacts with ANKLE2/LEM4, leading to decreased phosphorylation by VRK1 and promoting dephosphorylation by protein phosphatase 2A (PP2A). Binds non-specifically to double-stranded DNA, and is found as a hexamer or dodecamer upon DNA binding. Binds to LEM domain-containing nuclear proteins such as LEMD3/MAN1, TMPO/LAP2 and EMD (emerin). Interacts with CRX and LMNA (lamin-A). Binds linker histone H1.1 and core histones H3 with in vitro affinities of 500-900 and 100-200 nM. Interacts with HIV-1 pre-integration complex in cytoplasm by binding to viral matrix protein and Gag polyprotein. **Subcellular Location:** Nucleus. Cytoplasm. Chromosome. Significantly enriched at the nuclear inner membrane, diffusely throughout the nucleus during interphase and concentrated at the chromosomes during the M-phase. May be included in HIV-1 virions via its interaction with viral GAG polyprotein. **Tissue Specificity:** Widely expressed. Expressed in colon, brain, heart, kidney, liver, lung, ovary, pancreas, placenta, prostate, skeletal muscle, small intestine, spleen and testis. Not detected in thymus and peripheral blood leukocytes. **Post-translational modifications:** Partially phosphorylated on serine. Ser-4 phosphorylation may block BAF ability to promote EMD binding to lamins in vitro. Non phosphorylated BAF seems to enhances binding between EMD and LMNA. **DISEASE:** Defects in BANF1 are the cause of Nestor-Guillermo progeria syndrome (NGPS) [MIM:614008]. NGPS is an atypical progeroid syndrome characterized by normal development in the first years of life, later followed by the emergence of generalized lipoatrophy, severe osteoporosis, and marked osteolysis. The atrophic facial

	subcutaneous fat pad and the marked osteolysis of the maxilla and mandible result in a typical pseudosenile facial appearance with micrognatia, prominent subcutaneous venous patterning, a convex nasal ridge, and proptosis. Cognitive development is completely normal. Patients do not have cardiovascular dysfunction, atherosclerosis, or metabolic anomalies. **Similarity:** Belongs to the BAF family. **SWISS:** O75531 **Gene ID:** 8815 **Database links:** Entrez Gene: 8815Human Entrez Gene: 23825Mouse Entrez Gene: 114087Rat SwissProt: O75531Human SwissProt: O54962Mouse SwissProt: Q9R1T1Rat Unigene: 433759Human Unigene: 358649Mouse Unigene: 19921Rat **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.