10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CEMP1 Rabbit pAb

CEMP1 Rabbit pAb
Catalog # AP55310

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q6PRD7
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25959
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human CEMP1
Epitope Specificity	151-247/247
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	A mineralized connective tissue known as cementum covers the root surfaces of teeth and is required for maturation of periodontal tissue. CEMP1 (cementum protein 1), also designated CP23 or cementoblastoma-derived protein 1, is a 247 amino acid nuclear and cytoplasmic protein that is thought to regulate cementoblast behavior. Expressed specifically in periodontal ligament and cementum, CEMP1 may play a role in differentiation and mineralization of non-osteogenic cells. The gene encoding CEMP1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

Additional Information

Gene ID	752014
Other Names	Cementoblastoma-derived protein 1, Cementum protein 1, Cementum protein 23, CP-23, CEMP1 (HGNC:32553)
Target/Specificity	Detected in periodontal ligament, cementum, cementoblasts and cementoblastoma.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	CEMP1 (HGNC:32553)
Function	May play a role in development of the periodontium which surrounds and supports the teeth by promoting the differentiation of multi-potent cells from the periodontal ligament into cementoblasts to form the cementum (PubMed:17509525, PubMed:21465469, PubMed:21929512). Binds hydroxyapatite and may promote the biomineralization of the cementum (PubMed:19393626). Also promotes cell proliferation (PubMed:17509525, PubMed:21929512, PubMed:26011628).
Cellular Location	Cytoplasm. Nucleus Note=Localizes to the nucleus of some cementoblasts
Tissue Location	Expressed by cementoblasts, a subpopulation of periodontal ligament cells and cells located around vessels in periodontium (at protein level).

Background

A mineralized connective tissue known as cementum covers the root surfaces of teeth and is required for maturation of periodontal tissue. CEMP1 (cementum protein 1), also designated CP23 or cementoblastoma-derived protein 1, is a 247 amino acid nuclear and cytoplasmic protein that is thought to regulate cementoblast behavior. Expressed specifically in periodontal ligament and cementum, CEMP1 may play a role in differentiation and mineralization of non-osteogenic cells. The gene encoding CEMP1 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.