

Rabbit Anti-BMPR1B/ALK6 Polyclonal: RC0282

Intended Use: For Research Use Only

Description: On ligand binding, forms a receptor complex consisting of two type II and two type I transmembrane serine/threonine kinases. Type II receptors phosphorylate and activate type I receptors which autophosphorylate, then bind and activate SMAD transcriptional regulators. Receptor for BMP7/OP-1 and GDF5. Involvement in disease; Defects in BMPR1B are the cause of acromesomelic chondrodysplasia with genital anomalies (AMDGA). Acromesomelic chondrodysplasias are rare hereditary skeletal disorders characterized by short stature, very short limbs, and hand/foot malformations. The severity of limb abnormalities increases from proximal to distal with profoundly affected hands and feet showing brachydactyly and/or rudimentary fingers (knob-like fingers). Defects in BMPR1B are a cause of brachydactyly type A2 (BDA2). Brachydactylies (BDs) are a group of inherited malformations characterized by shortening of the digits due to abnormal development of the phalanges and/or the metacarpals. They have been classified on an anatomic and genetic basis into five groups, A to E, including three subgroups (A1 to A3) that usually manifest as autosomal dominant traits. BDA2 was described first in a large Norwegian kindred. BDA2 is caused by mutations in BMPR1B gene and studies demonstrate that these mutations function as dominant negatives in vitro and in vivo.

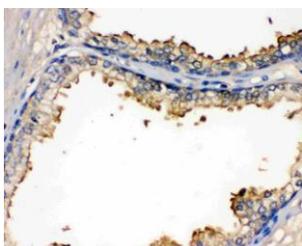
Specifications:

Clone: Polyclonal
Source: Rabbit
Isotype: IgG
Reactivity: Human
Localization: Membrane
Formulation: Antibody in PBS pH7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
Storage: Store at 2°- 8°C
Applications: IHC, WB
Package:

Description	Catalog No.	Size
BMPR1B/ALK6 Polyclonal Concentrated	RC0282	1 ml

IHC Procedure*:

Positive Control Tissue: Prostate cancer
Concentrated Dilution: 25-100
Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
Incubation Time and Temp: 30-60 minutes @ RT
Detection: Refer to the detection system manual
* Result should be confirmed by an established diagnostic procedure.



FFPE human prostate cancer stained with anti-BMPR1B using DAB

References:

1. Disequilibrium of BMP2 levels in the breast stem cell niche launches epithelial transformation by overamplifying BMPR1B cell response. Chapellier M, et al. Stem Cell Reports 4:239-54, 2015.
2. Leiomyoma Simultaneously Impair Endometrial BMP-2-Mediated Decidualization and Anticoagulant Expression through Secretion of TGF- β 3. Sinclair DC, et al. J Clin Endocrinol Metab 96:412-21, 2011.

Doc. 100-RC0282
Rev. A