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

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2)

Catalog # ABO16615

Specification

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Product Information

Application	**WB**
Primary Accession	Q5VTR2
Host	**Mouse**
Isotype	**IgG2b**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) . Tested in WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Additional Information

Gene ID 56254

Other Names
E3 ubiquitin-protein ligase BRE1A, BRE1-A, hBRE1, 2.3.2.27, RING finger protein 20, RING-type E3 ubiquitin transferase BRE1A, RNF20, BRE1A

Calculated MW
114 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human RNF20 recombinant protein (Position: E123-S389).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.**

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Protein Information

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

Name RNF20

Synonyms BRE1A

Function
Component of the RNF20/40 E3 ubiquitin-protein ligase complex that mediates monoubiquitination of 'Lys-120' of histone H2B (H2BK120ub1). H2BK120ub1 gives a specific tag for epigenetic transcriptional activation and is also prerequisite for histone H3 'Lys-4' and 'Lys-79' methylation (H3K4me and H3K79me, respectively). It thereby plays a central role inb histone code and gene regulation. The RNF20/40 complex forms a H2B ubiquitin ligase complex in cooperation with the E2 enzyme UBE2A or UBE2B; reports about the cooperation with UBE2E1/UBCH are contradictory. Required for transcriptional activation of Hox genes. Recruited to the MDM2 promoter, probably by being recruited by p53/TP53, and thereby acts as a transcriptional coactivator. Mediates the polyubiquitination of isoform 2 of PA2G4 in cancer cells leading to its proteasome-mediated degradation.

Cellular Location
Nucleus

Tissue Location
Expressed in the normal brain and also in malignant gliomas (at protein level).

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Images

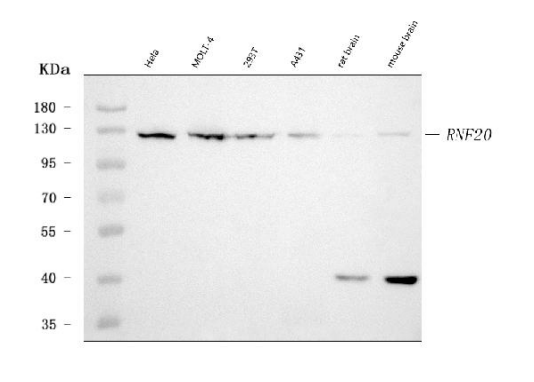

Figure 1. Western blot analysis of RNF20 using anti-RNF20 antibody (M03457-4). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing

conditions.
Lane 1: human Hela whole cell lysates,
Lane 2: human MOLT-4 whole cell lysates,
Lane 3: human 293T whole cell lysates,
Lane 4: human A431 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-RNF20 antigen affinity purified monoclonal antibody (Catalog # M03457-4) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for RNF20 at approximately 114 kDa. The expected band size for RNF20 is at 114 kDa.

Anti-RNF20 Antibody Picoband™ (monoclonal, 3C6E2) - Background

E3 ubiquitin-protein ligase BRE1A is an enzyme that in humans is encoded by the RNF20 gene. The protein encoded by this gene shares similarity with BRE1 of S. cerevisiae. The protein encoded by this human gene is an E3 ubiquitin ligase that regulates chromosome structure by monoubiquitinating histone H2B. This protein acts as a putative tumor suppressor and positively regulates the p53 tumor suppressor as well as numerous histone H2A and H2B genes. In contrast, this protein also suppresses the expression of several protooncogenes and growth-related genes, including many genes that are induced by epidermal growth factor. This gene selectively suppresses the expression of some genes by interfering with chromatin recruitment of transcription elongation factor SII (TFIIS).