Technical Data Sheet

Purified Mouse Anti-FXR2

Product Information

Material Number: 611330
Alternate Name: Fragile X
Size: 50 µg
Concentration: 250 µg/ml
Clone: 55/FXR2
Immunogen: Human FXR2 aa. 520-639
Isotype: Mouse IgG2b
Reactivity: QC Testing: Rat
Tested in Development: Human
Target MW: 95 kDa
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The fragile X syndrome results from amplification of a polymorphic CGG repeat in the 5' untranslated region of the FMR1 gene and is the most common form of inherited mental retardation. Although the lack of expression of FMR1 protein produces the fragile X syndrome, the pathological mechanism is not known. FMR1 is an RNA binding protein that performs a chaperone or transporter function. It interacts with FXR1 and FXR2. These proteins have 60% identity with FMR1 and have similar KH and RNA binding domains. All three proteins are cytosolic, associate with the 60S ribosomal subunit, and form homomers or heteromers with each other. During embryonic development, FMR1, FXR1, and FXR2 are expressed primarily in the nervous system. Small amounts of FMR1, FXR1, and FXR2 shuttle between the cytoplasm and nucleus. FMR1 is found in the nucleoplasm, while FXR2 is localized to the nucleolus. Thus, FMR1, FXR1, and FXR2, either individually or in tandem, function to transport RNAs throughout the cytoplasm and to specific sites in the nucleus. Alterations in the interactions between these proteins and ribosomal components may underlie the pathology that produces fragile X syndrome.

Western blot analysis of FXR2 on a PC12 cell lysate (Rat neuroblastoma; ATCC CRL-1721). Lane 1: 1:250, lane 2: 1:500, lane 3: 1000 dilution of the mouse anti-FXR2 antibody.

Immunofluorescence staining of HeLa cells (Human cervical epithelioid carcinoma; ATCC CCL-2).

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. Store undiluted at -20°C.

Application Notes

Application
Western blot Routinely Tested
Immunofluorescence Tested During Development

BD Biosciences

For country-specific contact information, visit bdbiocsciences.com/how_to_order/
Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Not for resale.
BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2008 BD
Recommended Assay Procedure:

**Western blot:** Please refer to http://wwwbdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

### Suggested Companion Products

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Name</th>
<th>Size</th>
<th>Clone</th>
</tr>
</thead>
<tbody>
<tr>
<td>611454</td>
<td>PC12 Cell Lysate</td>
<td>500 µg</td>
<td>(none)</td>
</tr>
<tr>
<td>554002</td>
<td>HRP Goat Anti-Mouse Ig</td>
<td>1.0 ml</td>
<td>(none)</td>
</tr>
<tr>
<td>554001</td>
<td>FITC Goat Anti-Mouse Ig</td>
<td>0.5 mg</td>
<td>Polyclonal</td>
</tr>
</tbody>
</table>

### Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to wwwbdbiosciences.com/pharmingen/protocols for technical protocols.

### References


Siomi MC, Zhang Y, Siomi H, Dreyfuss G. Specific sequences in the fragile X syndrome protein FMR1 and the FXR proteins mediate their binding to 60S ribosomal subunits and the interactions among them. EMBO J. 1996; 16(7):3825-3832. (Biology)


Zhang Y, O'Connor JP, Siomi MC. The fragile X mental retardation syndrome protein interacts with novel homologs FXR1 and FXR2. EMBO J. 1995; 14(21):5358-5366. (Biology)