DEVELOPMENTAL STUDIES HYBRIDOMA BANK
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IIID5E1

(Only cell products will be distributed.)

INVESTIGATOR

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IMMUNOGEN

Substance
- **Name** isolated membranes
- **Origin** rabbit
- **Chemical Composition**

Developmental Stage adult

IMMUNIZATION PROTOCOL

Donor Animal
- **Species** mouse
- **Strain** BALB/c
- **Sex** female
- **Organ and tissue** spleen

Immunization
- **Dates immunized**
- **Amount of antigen** 0.5 mg
- **Route of immunization** IP
- **Adjuvant** Freund's complete

FUSION

Date

Myeloma cell line
- **Species** mouse
- **Designation** NS-1

MONOCLONAL ANTIBODY

Isotype IgG1, kappa light chain

Specificity
- **Cell binding**
- **Immunohistology** yes
- **Antibody competition**

Species Specificity rabbit, mouse, human

ANTIGEN

skeletal muscle DHPR alpha-subunit (Ca2+ channel)

Chemical properties

Molecular weight 170 kDa

Characterization
- **Immunoprecipitation** yes
- **Immunoblotting** yes
- **Purification**
- **Amino acid sequence analysis**

Functional effects

Immunohistochemistry yes

PUBLICATIONS :

Leung, A.T., Imagawa, T., and Campbell, K.P. (1987). Structural characterization of the 1,4-dihydropyridine receptor of the voltage-dependent Ca^{2+} channel from rabbit skeletal muscle. J. Biol. Chem. 262(17), 7943-7946.

Imagawa, T., Leung, A.T., and Campbell, K.P. (1987). Phosphorylation of the 1,4-dihydropyridine receptor of the voltage-dependent Ca^{2+} channel by an intrinsic protein kinase in isolated triads from rabbit skeletal muscle. J. Biol. Chem. 262(17), 8333-8339.

Sharp, A.H., Imagawa, T., Leung, A.T., and Campbell, K.P. (1987). Identification and characterization of the dihydropyridine-binding subunit of the skeletal muscle dihydropyridine receptor. (1987). J. Biol. Chem. 262(25) 12309-12315.

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Jorgensen, A.O., Shen, A.C.-Y., Arnold, W., Leung, A.T., and Campbell, K.P. (1989). Subcellular distribution of the 1,4-dihydropyridine receptor in rabbit skeletal muscle in situ: an immunofluorescence and immunocolloidal gold-labeling study. J. Cell Biol. 109, 135-147.

Murphy, R.M., Mollica, J.P., and Lamb, G.D. (2009). Plasma membrane removal in rat skeletal muscle fibers reveals caveolin-3 hot-spots at the necks of transverse tubules. Exp. Cell Res. 315, 1015-1028.

Liewluck, T., Lovell, T.L., Bite, A.V., and Engel, A.G. (2010). Sporadic centronuclear myopathy with muscle pseudohypertrophy, neutropenia, and necklace fibers due to a DNM2 mutation. Neuromuscul. Disord. 20, 801-804.

ACKNOWLEDGMENTS STATEMENT

We have been asked by NICHD to ensure that all investigators include an acknowledgment in publications that benefit from the use of the DSHB's products. We suggest that the following statement be used:

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