



## DEVELOPMENTAL STUDIES HYBRIDOMA BANK

dshb.biology.uiowa.edu | 319-335-3826 | [dshb@uiowa.edu](mailto:dshb@uiowa.edu)

5-6

### INVESTIGATOR

**Name** Henry F. Epstein  
**Address** Dept of Neuroscience and Cell Biology, University of Texas Medical Branch, 301 University Blvd, Galveston, TX 77555-0625

### IMMUNOGEN

#### Substance

**Name** myosin  
**Origin** C. elegans  
**Chemical Composition** 95% pure  
**Developmental Stage** heterogeneous

### IMMUNIZATION PROTOCOL

#### Donor Animal

**Species** mouse  
**Strain** BALB/c  
**Sex** male  
**Organ and tissue** spleen

#### Immunization

**Dates immunized**  
**Amount of antigen** 50 micrograms  
**Route of immunization** IP  
**Adjuvant** 50% Freund's

### FUSION

#### Date

#### Myeloma cell line

**Species** mouse  
**Designation** S194/5.XX0.Bu.1

### MONOCLONAL ANTIBODY

#### Isotype

IgG1

#### Specificity

**Cell binding** central zone of A-bands of muscle cells in body wall and elsewhere; not in pharynx  
**Immunohistology** yes  
**Antibody competition**  
**Species Specificity** C. elegans, others at higher concentration of antibody

### ANTIGEN

#### Chemical properties

myosin heavy chain near the head/rod junction (S2)

#### Molecular weight

~210 kDa

#### Characterization

**Immunoprecipitation**  
**Immunoblotting** yes  
**Purification**  
**Amino acid sequence analysis** encoded by the myo-3 gene, 1969 amino acids  
**Functional effects** structural and motor protein in muscle  
**Immunohistochemistry** yes

### PUBLICATIONS :

Miller, D.M. 3rd, Ortiz, I., Berliner, G.C., and Epstein, H.F. (1983). Differential localization of two myosins within nematode thick filaments. Cell 34(2), 477-490.

Miller, D.M., Stockdale, F.E., and Karn, J. (1986). Immunological identification of the genes encoding the four myosin heavy chain isoforms of Caenorhabditis elegans. PNAS 83(8), 2305-2309.



## DEVELOPMENTAL STUDIES HYBRIDOMA BANK

dshb.biology.uiowa.edu | 319-335-3826 | [dshb@uiowa.edu](mailto:dshb@uiowa.edu)

### 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:

“The (select: hybridoma, monoclonal antibody, or protein capture reagent,) developed by [Investigator(s) or Institution] was obtained from the Developmental Studies Hybridoma Bank, created by the NICHD of the NIH and maintained at The University of Iowa, Department of Biology, Iowa City, IA 52242.”

Please send copies of all publications resulting from the use of Bank products to:

Developmental Studies Hybridoma Bank  
Department of Biology  
The University of Iowa  
028 Biology Building East  
Iowa City, IA 52242