DEVELOPMENTAL STUDIES HYBRIDOMA BANK
dshb.biology.uiowa.edu | 319-335-3826 | dshb@uiowa.edu

fluorescein

INVESTIGATOR

Name Edward W. Voss
Address 555 Hahaione Street #8H, Honolulu, HI 96825-1460.

IMMUNOGEN

Substance	fluorescein
Name	fluorescein (I) keyhole limpet hemocyanin (highly substituted)
Origin	hapten = fluorescein; protein carrier = keyhole limpet hemocyanin
Chemical Composition	fluorescein isothiocyanate (isomer I)
Developmental Stage	

IMMUNIZATION PROTOCOL

Donor Animal	
Species	mouse
Strain	BALB/c
Sex	female
Organ and tissue	lymphocyte (spleenocyte)
Immunization	
Dates immunized	not sure – early 1980s
Amount of antigen	~100 µg several times with 3 week intervals, 4-4-20 is a hyperimmune antibody
Route of immunization	intraperitoneal
Adjuvant	Complete Freund's adjuvant (emulsion)

FUSION

Date	early 1980s
Myeloma cell line	
Species	BALB/c Sp2/0 – Ag 14
Designation	4-4-20-P1E112-F9 and 4-4-20-P2C4 (two different clones of the same monoclonal antibody)

MONOCLONAL ANTIBODY

Isotype	IgG2a
Specificity	anti- fluorescein (hapten)
Cell binding	
Immunohistology	
Antibody competition	
Species Specificity	specific for fluorescein, will not react with other fluorescent compounds such as rhodamine

ANTIGEN

Chemical properties	hapten (highly fluorescent compound)
Molecular weight	400 kDa
Characterization	
Immunoprecipitation	
Immunoblotting	
Purification	
Amino acid sequence analysis	
Functional effects	
Immunohistochemistry	

PUBLICATIONS :

Fluorescein Hapten: An Immunological Probe by Edward W. Voss, CRC Press (1984). This reference serves as a good review of the anti- fluorescein system. Perhaps 100 journal articles were written over the course of 20 years with Edward W. Voss as the principal investigator. The entire amino acid sequence of the Fab fragment has been published and the structure of the antibody solved by crystallization to about 3.0 angstroms.

DEVELOPMENTAL STUDIES HYBRIDOMA BANK
dshb.biology.uiowa.edu | 319-335-3826 | 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