CD38 (rat)

CONTACT INFORMATION:	Immunology Unit. Faculty of Medicine and Medical Sciences, University of Barcelona
STATUS:	Validated
TYPE:	mouse anti rat
CLONE NAME:	CD38.14.27
PROTEIN:	-
ANTIGEN USED:	Rat hepatic stellate cells (HSCs)
FUSION PARTNER:	Ns1
ISOTYPE:	IgG2
SPECIES REACTIVITY:	-
PREPARATION AND STORAGE:	-

DESCRIPTION

CD38, a type II transmembrane glycoproteins originally identified as an activation antigen of T and B cells. It is expressed on several leukocytes and early hematopoietic precursor cells. This molecules is also expressed in nonhematopoietic cells, including epithelial cells and astrocytes. CD38 is an ectoenzyme that catalyzes the synthesis of cyclic ADP ribose (a potent second messenger for Ca2+ release) and a receptor that initiates transmembrane signaling on engagement with its counterreceptor CD31 or with agonistic mAbs. The effects mediated by CD38 include the production of proinflammatory cytokines, proliferation, and protection from apoptosis in lymphocytes.

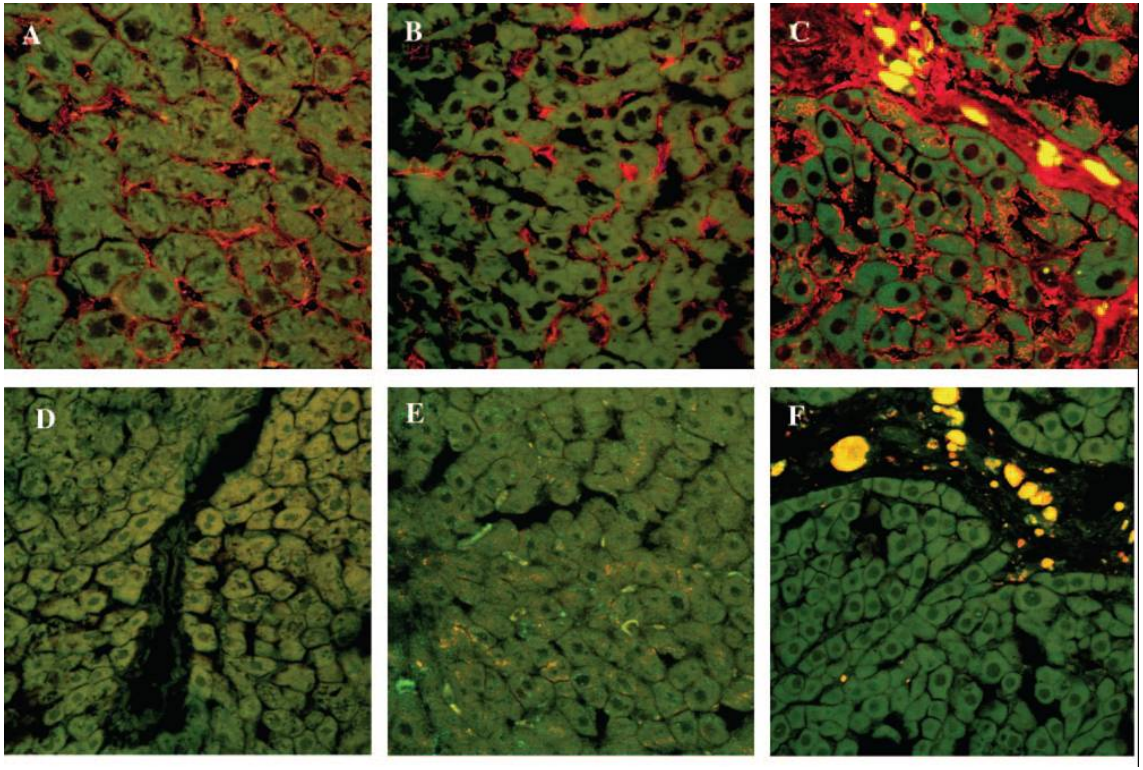
REFERENCES

March S, Graupera M, Sarrias MR, Lozano F, Pizcueta P, Bosch J, and Engel P. Identification and Functional Characterization of the Hepatic Stellate Cell CD38 Cell Surface Molecule. AJP January 2007, Vol. 170, No. 1

APPLICATIONS

IHC Techniques	Clone	Dilution	Antibody concentration	Antigen retrieval method	Visualization kit	Positive control	Negative control	Protein localization	Positivity in other species

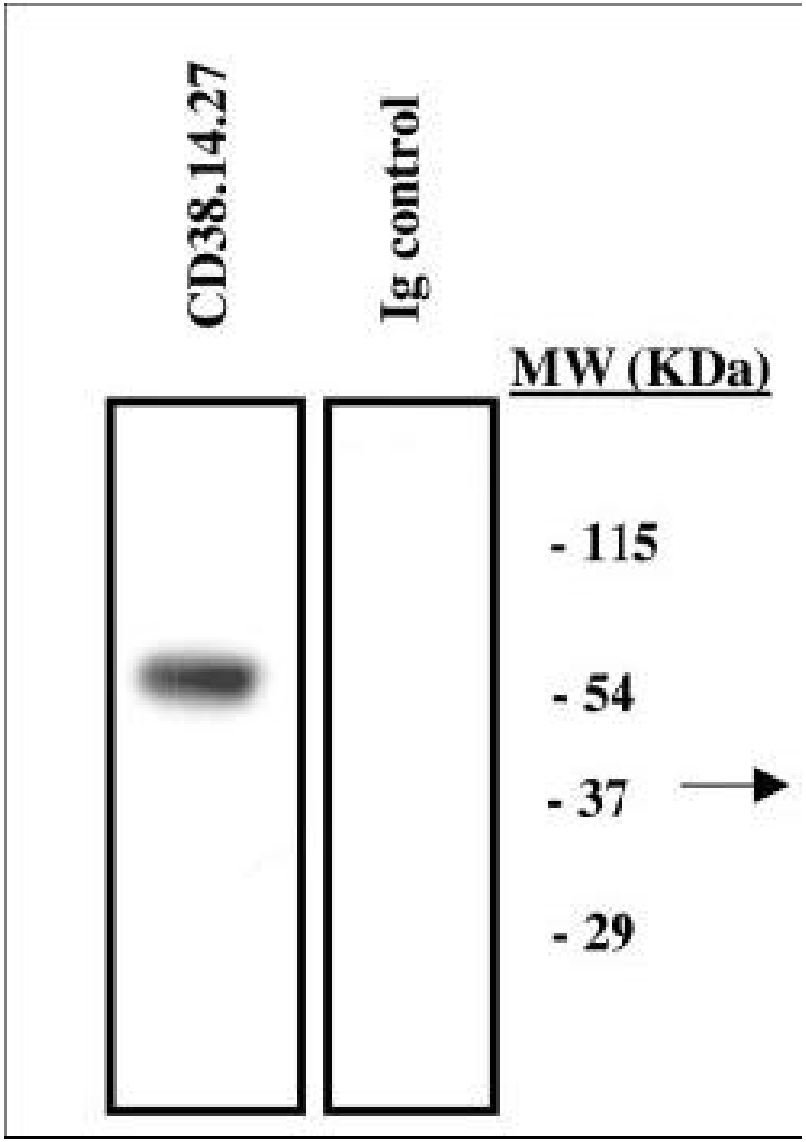
Frozen tissue and cytospins									
Paraffin tissue									
Immunofluorescence									
	CD38.14.27	1 ug					Ig control	rat CD38	



Immunolocalization of CD38 in rat liver sections

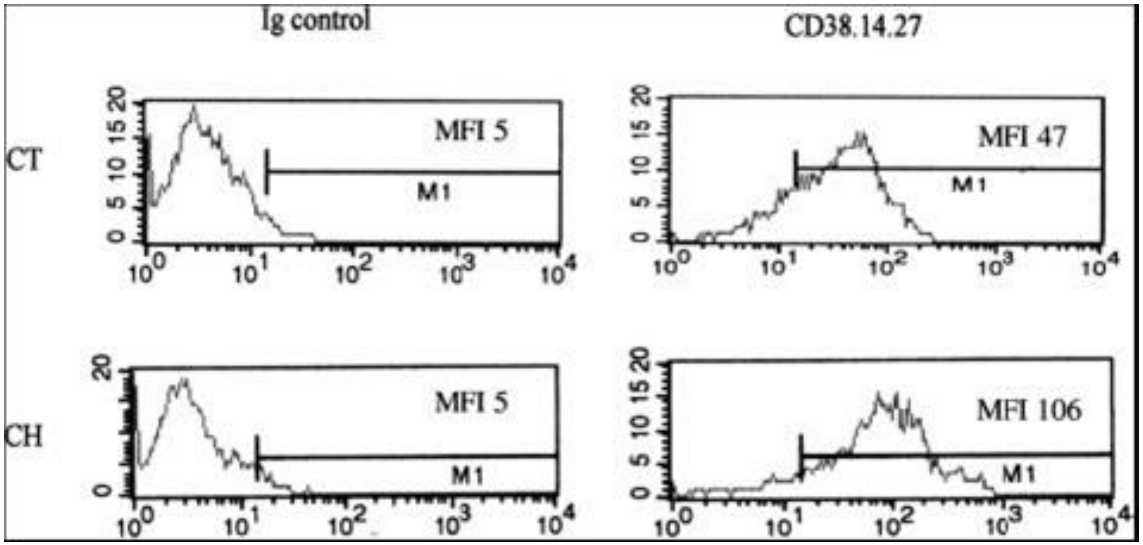
A–F: Liver sections of control rats (A and D), rats pretreated with LPS (550 ug/rat) (B and E) and cirrhotic rats with an advanced stage of fibrosis displaying prominent scars (C and D) were stained with an antibody against CD38 (CD38.14.27) (A–C) or with an Ig control (D–F). Liver sections were washed and incubated with an anti-mouse Cy-3-conjugated secondary antibody (red). Hepatocyte autofluorescence from hepatocytes is seen in green.

WB Techniques	Clone	Dilution	Antibody concentration	Positive control	Negative control	Expected MW	Observed Mw	Positivity in other species
Western Blotting								
	CD38.14.27	1 ug			Ig control	34.43 KD	45 KD	
Immunoprecipitation								



Western blot analysis of the protein recognized by mAb CD38.14.27.

FLOW CYTOMETRY	Clone	Dilution	Positive control	Negative control	Type of fluorocrom
	CD38.14.27	1 ug		Ig control	



Expression of CD38 on activated HSCs.

HSCs were freshly isolated from control (top) and cirrhotic (bottom) rats. CD38+ cells were gated, and the intensity of CD38 expression was assessed by flow cytometry (FACS) using CD38.14.27 mAb. Fluorescence intensity is shown over a 3-decade log scale.