BACKGROUND
The Bcl-2 gene was isolated at the chromosomal breakpoint of t(14;18) bearing follicular B cell lymphomas. Bcl-2 blocks cell death following a variety of stimuli and confers a death-sparing effect to certain hematopoietic cell lines following growth factor withdrawal. A second protein, designated Bcl-associated X protein (Bax) p21, has extensive amino acid homology with Bcl-2 and both homodimerizes and heterodimerizes with Bcl-2. Over-expression of Bax accelerates apoptotic death induced by cytokine deprivation in an IL-3-dependent cell line, and Bax also counters the death repressor activity of Bcl-2. Bcl-x, one of several additional proteins with sequence homology to Bcl-2, is expressed as Bcl-xL, a 233 amino acid protein with 43% sequence identity with Bcl-2 that suppresses cell death, and Bcl-xS, a shorter variant that is 178 amino acids in length and lacks a 63 amino acid region (amino acids 126-186) found in Bcl-xL and which functions as a dominant inhibitor of Bcl-2. A further apoptosis-inducing protein, Bad, dimerizes both with Bcl-xL and to a lesser extent with Bcl-2, thus displacing Bax and inducing apoptosis.

CHROMOSOMAL LOCATION
Genetic locus: BCL2L1 (human) mapping to 20q11.21; Bcl2l1 (mouse) mapping to 2H1.

SOURCE
Bcl-xS/L (2H12) is a mouse monoclonal antibody raised against an N-terminal peptide (amino acids 3-14) common to human and mouse Bcl-xL and Bcl-xS.

PRODUCT
Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE
For research use only, not for use in diagnostic procedures.

PROTOCOLS
See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS
Bcl-xS/L (2H12) is recommended for detection of Bcl-xL and Bcl-xS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

SELECT PRODUCT CITATIONS