

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Seipin/BSCL2 in direct ELISAs and Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Seipin/BSCL2 Asn279-Ser398 Accession # Q96G97
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

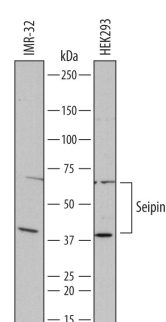
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

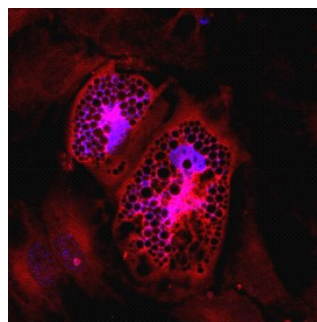
DATA

Western Blot



Detection of Human Seipin/BSCL2 by Western Blot. Western blot shows lysates of IMR-32 human neuroblastoma cell line and HEK293 human embryonic kidney cell line. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Human Seipin/BSCL2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7385) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for Seipin/BSCL2 at approximately 70 and 40 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunocytochemistry



Seipin/BSCL2 in Human Mesenchymal Stem Cells. Seipin/BSCL2 was detected in immersion fixed human mesenchymal stem cells differentiated into adipocytes using Sheep Anti-Human Seipin/BSCL2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7385) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red; Catalog # NL010) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

BSCL2 (Bernardinelli-Seip Congenital Lipodystrophy type 2 protein; also Seipin) is a 70-74 kDa glycoprotein member of the seipin family of molecules. Although it has widespread expression, and has been specifically found in the endoplasmic reticulum (ER) of cortical and spinal motor neurons, basophils of the anterior pituitary, adipocytes and spermatids. Its function is unclear, but it is known to structurally resemble SREBPs, and thus may regulate gene transcription. Mutations are reported that involve its glycosylation site, causing protein misfolding and the initiation of apoptosis. Human BSCL2 is 398 amino acids (aa) in length. It contains two transmembrane segments (aa 27-47 and 243-263) plus an N-terminal (aa 1-26) and C-terminal (aa 264-398) cytoplasmic domain. BSCL2 is polyubiquitinated, and runs between 100-200 kDa in SDS-PAGE. There is an alternative start site 64 aa upstream of the standard site. This 462 aa isoform is considered to be the predominant isoform for BSCL2, and is associated with the 70-74 kDa MW cited above. There is one additional potential isoform variant that possesses a 63 aa substitution for aa 225-398. BSCL2 is reportedly cleaved, and generates a 40-41 kDa N-terminal fragment. Over aa 279-398, human BSCL2 shares 73% aa sequence identity with mouse BSCL2.