Technical Data Sheet

Organelle Detector Sampler Kit

Product Information

Material Number: **612740**
Size: 10 µg
Concentration: 250 µg/ml
Storage Buffer: Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

All cells, both prokaryotic and eukaryotic, contain phospholipid bilayer membranes. However, eukaryotic cells also contain an extensive and intricate internal array of membranes. These membranes form a subcellular set of structures called the organelles, which enclose specific regions and separate them from the remainder of the cytoplasm. The most prominent organelle is the nucleus, which partitions the genetic. Located in structural continuity with the nuclear outer membrane is the rough endoplasmic reticulum (ER), the site of protein synthesis. Smooth ER is found throughout the cytoplasm and is the site of fatty acid and phospholipid metabolism. Newly synthesized protein is transported, via vesicles, from the rough ER to the Golgi apparatus. The Golgi is a system of stacked, flattened sacks that function in modifying, sorting, and packaging proteins and other macromolecules for delivery within the cell or for secretion from the cell. Other prominent organelles are the mitochondria, which are thought to have evolved from bacteria that were engulfed by cells with which they initially lived in symbiosis. Mitochondria are the site of oxidative phosphorylation reactions that result in the production of cellular ATP. The endocytic pathway involves other organelles, such as the endosomes and lysosomes. Newly ingested material is contained within the endosome which, in turn, passes the material to lysosomes for degradation by the digestive enzymes that are active in the acidic lysosomal lumen. Each organelle and its associated proteins perform distinct functions that are essential for cellular growth and metabolism. The following antibodies in this sampler kit may be useful for examining the following organelles:

Annexin II= plasmalema
BiP/GRP78= endoplasmic reticulum
β-Catenin= zonula adherens
Caveolin-1= caveolae
Connexin-43= gap junctions
EEA1= endosomes
GM130= Golgi
Lamp-1= lysosomes
MAP2B= microtubules
Bcl-2= mitochondria
Nucleoporin p62= nucleus
Paxillin= focal contacts
CD49b (Integrin α2)= plasma membrane
ZO-1= zonula occludens

Antibody	Component No.	50µg Cat. No.	Isotype	MW	WB	IP	IF	IH	Cross reactivity	Dilution for WB
Annexin II	51-9001895	610068	IgG1	36	+	nat/den	+	+	Hu Dog Rat Mu Ch	1:5000
BiP/GRP78	51-9001980	610978	IgG2a	78	+		-		Hu Dog Rat Mu	1:250
β-Catenin	51-9001921	610153	IgG1	92	+	nat/den	+	+	Hu Dog Rat Mu Ch	1:500
Caveolin 1	51-9001933	610406	IgG1	22	+	nat/den	+	+	Hu Dog Rat Mu Ch	1:1000
Connexin-43	51-9001918	610061	IgG1	43	+	-	+	-	Hu Dog Rat Mu Ch	1:250
EEA1	51-9001964	610456	IgG1	180	+	-	+	-	Hu Dog Rat Ch	1:2500
GM130	51-9001978	610822	IgG1	130	+	-	+	-	Hu Dog Rat Mu	1:250
CD49b (Integrinα2)	51-9002113	611016	IgG2a	150	+		+		Hu	1:250
Lamp-1	51-9002014	611042	IgG2b	110	+	nat/den	-		Hu	1:250
MAP2B	51-9002018	610460	IgG1	280	+	-	+	+	Hu Rat Mu	1:2500
Bcl-2	51-9001912	610538	IgG1	26	+	-	+	+	Hu Dog Rat Mu Ch	1:500
Nucleoporin p62	51-9002029	610497	IgG2b	62	+	nat/den	+	-	Hu Rat Mu Ch	1:1000
Paxillin	51-9002034	610051	IgG1	68	+	nat/den	+	+	Hu Dog Rat Mu Ch	1:10,000
ZO-1	51-9002119	610966	IgG1	220	+		+		Hu	1:250

IP: nat = native condition, den = denaturing conditions
This kit includes 10 µg of each antibody listed at a concentration of 250 µg/ml. No substitutions allowed.

Preparation and Storage

Store undiluted at -20°C.

BD Biosciences
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United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	800.979.9408	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country contact information, visit **bdbiosciences.com/contact**

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Tested During Development
Immunofluorescence	Tested During Development
Immunohistochemistry	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/support/resources/cell_biology/index.jsp

Suggested Companion Products

Catalog Number	Name	Size	Clone
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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