FABP

Fatty acid-binding protein

Fatty acid-binding proteins (FABPs) are members of the intracellular lipid-binding protein (iLBP) family and are involved in reversibly binding intracellular hydrophobic ligands and trafficking them throughout cellular compartments, including the peroxisomes, mitochondria, endoplasmic reticulum and nucleus. FABPs have broad specificity, including the ability to bind long-chain (C16-C20) fatty acids, eicosanoids, bile salts and peroxisome proliferators. FABPs demonstrate strong evolutionary conservation and are present in a spectrum of species including Drosophila melanogaster, Caenorhabditis elegans, mouse and human.

FABPs are widely expressed throughout the body and play an integral role in a multitude of physiological processes such as lipid metabolism, inflammation and neuronal signaling. FABPs of the mammalian central and peripheral nervous systems have been shown to facilitate the intracellular transport of NAEs, particularly the endocannabinoid arachidonoyl ethanolamide (anandamide, AEA), as well as catabolism by the endoplasmic reticulum-localized enzyme fatty acid amide hydrolase (FAAH).

Most mammals produce 12 distinct subtypes of FABPs, although humans produce up to 10. These include liver-(L-FABP, FABP1), intestine-(I-FABP, FABP2), heart-(H-FABP, FABP3), adipocyte-(A-FABP, FABP4), epidermal-(E-FABP, FABP5), ileal-(Il-FABP, FABP6), brain-(B-FABP, FABP7), myelin-(M-FABP, FABP8), testis-(T-FABP, FABP9) and FABP12, and three of which are expressed in the brain, including FABP3, FABP5 and FABP7.

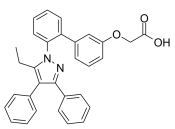
FABPs have diverse and highly specified roles in regulating the metabolism and actions of the ligands they bind. They are important targets for drug development and therapy for many metabolic diseases.

FABP Inhibitors & Antagonists

BMS-309403

Cat. No.: HY-101903

BMS-309403 is a potent, orally active and selective **adipocyte fatty acid binding protein** (also known as FABP4, aP2) inhibitor with K_is of <2, 250, and 350 nM for FABP4, FABP3, and FABP5, respectively.

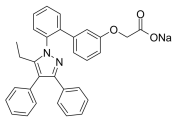


Purity: 99.87%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg

BMS-309403 sodium

Cat. No.: HY-101903A

BMS-309403 sodium is a potent, orally active, and selective **adipocyte fatty acid binding protein** (also known as FABP4, aP2) inhibitor, with K_is of <2, 250, and 350 nM for FABP4, FABP3, and FABP5, respectively.

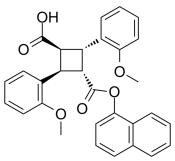


Purity: 98.73%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg

FABP-IN-1

Cat. No.: HY-129911

FABP-IN-1 (Compounds 4b) is a high affinity **fatty acid binding protein (FABP)** inhibitor. FABP-IN-1 inhibits **FABP3**, **FABP5**, and **FABP7** with K_i values of 0.69 μM, 0.55 μM and 0.67 μM, respectively. FABP-IN-1 displays potent antinociceptive effects.

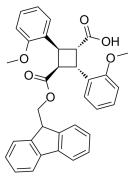


Purity: 98.20%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

FABP5-IN-1

Cat. No.: HY-129910

FABP5-IN-1 is a selective and high affinity **fatty acid binding protein 5 (FABP5)** inhibitor with a K_i value of 1.7 μM, and does not bind to both FABP3 and FABP7. FABP5-IN-1 shows potent antinociceptive effects.

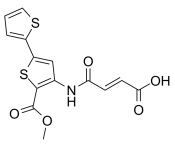


Purity: 98.57%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg, 100 mg

HTS01037

Cat. No.: HY-101503

HTS01037 is an inhibitor of **fatty acid** binding; and a competitive antagonist of **protein-protein** interactions mediated by AFABP/aP2 with a K_i of 0.67 μM.



Purity: 99.76%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg