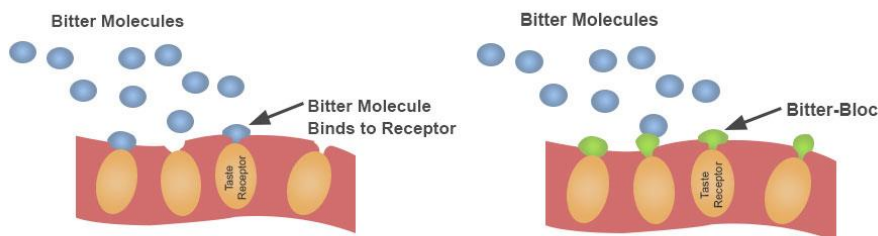


Bitter-Bloc™ Natural Bitterness Blocker and Flavor Enhancer

Receptor Activity Studies

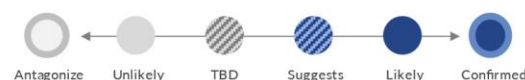
Bitter Bloc™ is the next generation technology protein to block flavor defects **Naturally**. Bitter-Bloc™ can be formulated to work in hundreds of applications to effectively solve the palatability problems found with many APIs and excipients. Other products on the market simply mask flavor defects, Bitter-Bloc™ blocks flavor defects from reaching taste buds to give your compounded prescriptions a cleaner taste profile to help improve patient compliance and satisfaction. Bitter-Bloc™ is an organic, water-soluble protein that a validated 3rd party study shows that it effectively modulates bitter taste receptors on the tongue, therefore maximizing the reduction in bitterness perception. Bitter-Bloc™ also works to eliminate salty, metallic, astringent, and general off-notes in a variety of liquid, powder, or tablet based oral formulations.

Bitter Blocking Mechanism



Bitter-Bloc™ Natural Bitterness Blocker and Flavor Enhancer

Bitter-Bloc™ Receptor Activity



hTAS2R1/1-299
Diphenidol

hTAS2R3/1-316
Ethanol

hTAS2R4/1-299
Ethanol / Quinine

hTAS2R5/1-299
Ethanol

hTAS2R7/1-318
Quinine

hTAS2R8/1-309
Sucralose

hTAS2R9/1-312
TBD

hTAS2R10/1-307
Erythromycin

hTAS2R13/1-303
Diphenidol

hTAS2R14/1-317
Stevia

hTAS2R16/1-291
Amygdalin

hTAS2R38/1-333
Ethylpyrazine

hTAS2R39/1-338
Acetaminophen

hTAS2R40/1-323
Quinine / Diphenidol

hTAS2R41/1-307
Sucralose

hTAS2R42/1-314
No Known Ligands

hTAS2R43/1-309
Quinine / Saccharin

hTAS2R44/1-309
Saccharin / Diphenidol

hTAS2R45/1-299
No Known Ligand

hTAS2R46/1-309
Hydrocortisone

hTAS2R47/1-319
Diphenidol

hTAS2R48/1-299
No Known Ligands

hTAS2R49/1-309
Diphenidol

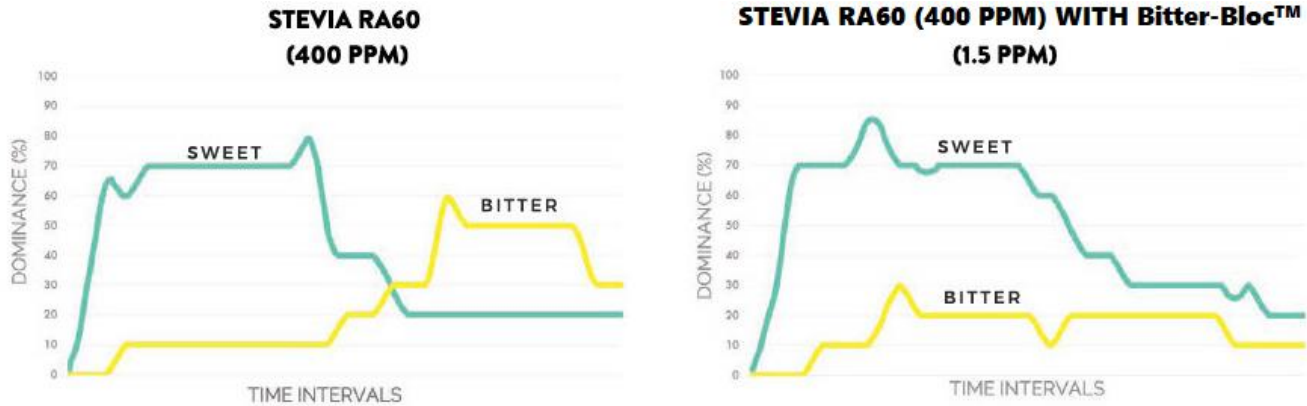
hTAS2R50/1-299
TBD

hTAS2R60/1-318
No Known Ligands

16 of 25
receptors impacted
Plus 6 TBD

Bitter Blocking Case Study

Demonstrating effectiveness of Bitter-Bloc™ and its ability to address the negative aftertaste of Stevia.



Our organic Bitter-Bloc™ can be formulated to work in hundreds of applications to effectively solve the bitter problems found in many APIs and excipients.

HIGHLIGHTS

- ✓ Pediatric Medications
- ✓ Geriatric Medications
- ✓ Veterinary Medications
- ✓ Vitamin Supplements
- ✓ Reduced masking sweeteners
- ✓ Bitter Pharmaceuticals
- ✓ **100% Organic Plant Based**
- ✓ Anhydrous
- ✓ NON-GMO, Kosher
- ✓ Low pH Stable
- ✓ Heat Stable
- ✓ Preservative and Dye Free
- ✓ Gras Status

Typically, Bitter-Bloc™ is effective in most aqueous liquid formulas around the 100-500 ppm, however the most effective usage often requires incremental use level adjustment dependent on the bitterness of the ingredient(s).

100% Natural Bitterness Blocking Technology

Available Products:

- Pure Powder
- WS/OS Liquid Concentrate
- WS Powder Concentrate

For your convenience, many of our bases are fortified with Bitter Bloc™

Exclusively From

