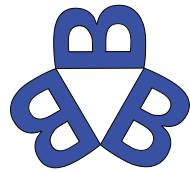


We make your great products taste better!



Who is Better Bitter Blocker aka BBB?

BBB is a bitter blocker solutions company that is part of plantrica, a national multi-award winning product developer and IP company founded in 2010. Plantrica has tested and developed over 50 products in the beverage, tincture, topical, water-soluble powder and confectionary categories with 100,000's of products being delivered to consumers. This real world experience sets us apart as both a developer and producer of products that lead us to develop our Patent-Pending bitter-blocking solutions.

What is BBB?

BBB blocks on average **50%-80%** of the bitterness and comes in two formulas. Our patent-pending bitter compound taste blocker formulations are based on 15+ years of bitter product formulation, production experience and R&D. Better Bitter Blocker comes in two profiles allowing a bitter and sweet tunable approach :

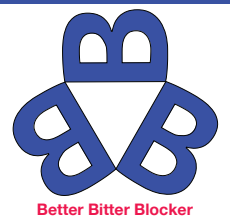
BBB T1R+: Bitter Taste Masker

By modulating and engaging with the T1R's sweet receptors, the bitterness sensation is greatly reduced for many products by reducing the intensity of a bitter API. We expanded the profile by combining our proprietary bitter masking natural flavors to activate additional taste masking receptors. This profile can be used on its own or together with the BBB T2R+ Bitter Blocker.

BBB T2R+: Bitter Blocker

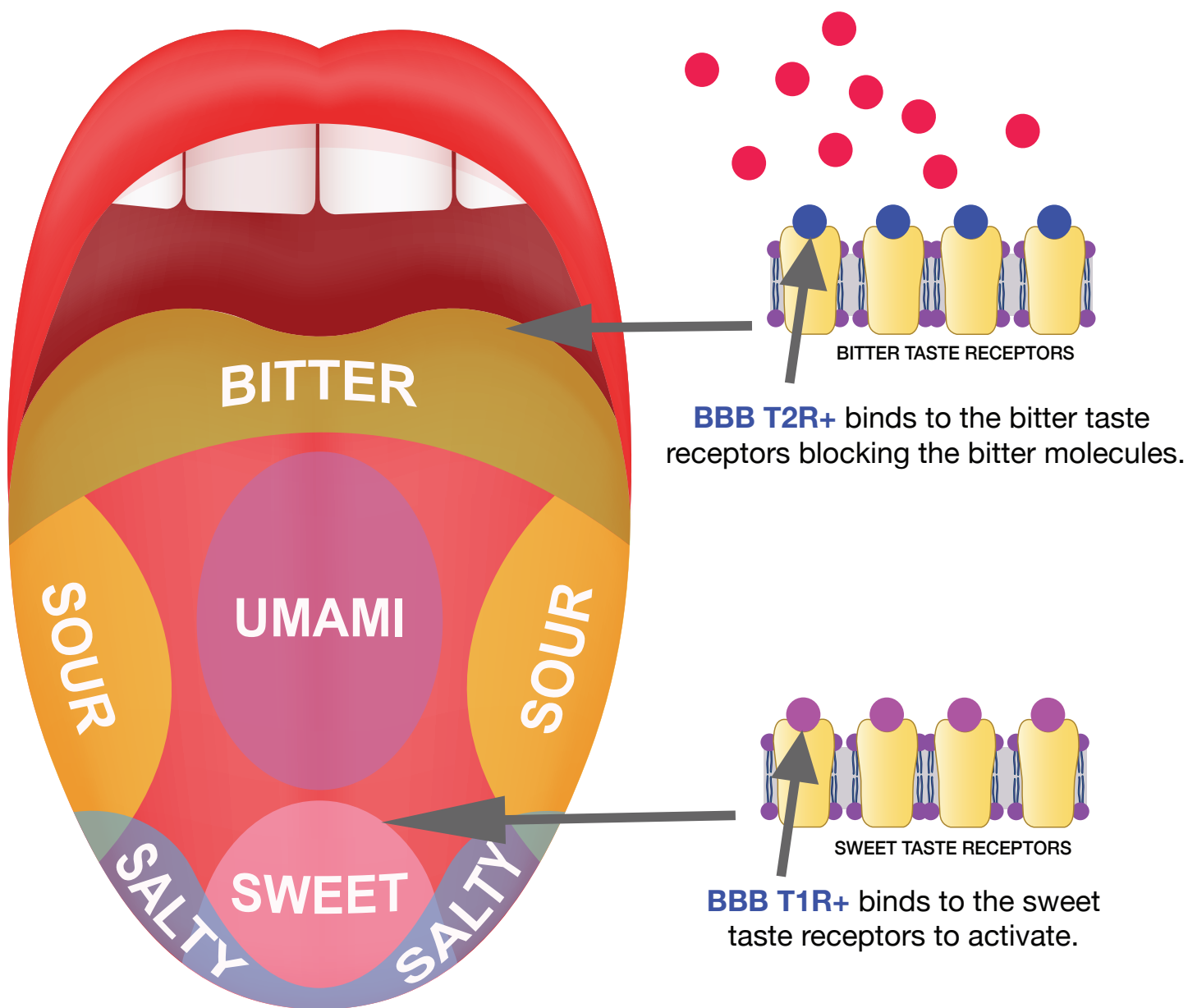
This formulation is unique since it not only suppresses multiple bitter T2R receptors it also interacts with the gusatory system's (controls the sense of taste) signal transfer registering bitter tastes. We expanded this profile by combining our proprietary bitter masking flavors to activate additional taste masking receptors.

Bitter Blocking Solutions



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How it works:

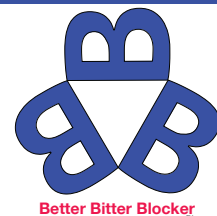


● : Bitter Molecules ● : **BBB T2R+**: Bitter Blocker ● : **BBB T1R+**: Bitter Taste Masker



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Better Bitter Blocker

We make your great products taste better!

Researched and Tested

We researched and utilized all major bitter blocker products and determined that no single bitter blocker product works for all formulations. We tested BBB with over 300 isolated bitter compounds and found that the overall reduction in bitter detection was 50-80%. Based on these results the BBB interacts with the majority of the T2R bitter receptors.

Benefits

- 1)Lowers sugar amounts in some products
- 2) Bitter blocking: 50-80%
- 3) Nanoparticle tested
- 4) Nanoemulsion tested
- 5) Astringency reducer
- 6) Flavor enhancer
- 7) Low use rates
- 8) Sour reducer

Usage Range and Suggestions

BBB is typically used in the 2-5% range (masker) and 20%-40% (blocker) based on a percent of your API and the type of API in your product. Since it is water-soluble you may also make a liquid solution of formulation for larger batch homogeneity blending. Our patent-pending BBB is a "tunable" approach by separating and offering our BBB T2R+ and BBB T1R+.They can be utilized on their own, combined or utilized in concert with a 3rd party bitter blocker.

BBB T1R+: Bitter Taste Masker: 2-5% average of your bitter API

BBB T2R+: Bitter Blocker: 20-40% average of your bitter API

pH estimator*

pH in 7.0 pH Reverse Osmosis water in 30 ML and 500 MG of BBB.

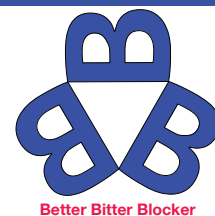
*Each product formulation will adjust for the final product's target pH

BBB T1R+: Bitter Taste Masker: 4.6 pH

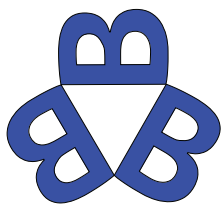
BBB T2R+: Bitter Blocker: 4.9 pH

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Technical Data Sheet



CATEGORY

BBB is blended at the same stage as your flavor, sweetener
Better Bitter Blocker (“BBB”) T2R (“BBB T2R+”) bitter blocker is our patent-pending Bitter Blocking Technology that works with hundreds of powder, liquid and tablet products to effectively solve the palatability problems found with many APIs and excipients. Depending on your formulation you may also choose to use our proprietary T1R Bitter Taste Masker (“BBB T1R+”).

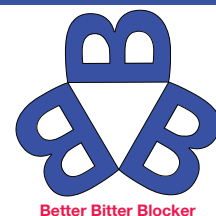
The BBB line is a water-soluble line of products utilizing natural flavors and GRAS ingredients that interact with multiple T1R and T2R receptors on the tongue and back of the throat reducing the bitterness perception working to eliminate salty, metallic, astringent, and general off-notes.

BBB is a natural flavor enhancer and bitterness blocking technology that can be used to formulate various orally ingested products. Common uses in oral pediatric, geriatric, nutraceutical, pharmaceutical and veterinary medications. The powders are Anhydrous Water-soluble and Oil insoluble.

INGREDIENTS PROFILE

The water-soluble GRAS powder formulations are manufactured and blended through a proprietary process developed and manufactured only by Better Bitter Blocker. BBB TR1+ and BBB TR2+ are compounds composed of proprietary natural bitter blocking and masking flavors and amino acids.

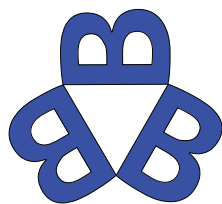
Bitter Blocking Solutions



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Technical DataSheet continued



INGREDIENT PANEL LISTING:

BBB T1R+: Natural flavors

BBB T2R+: Natural flavors, GABA

ALLERGY

Per the 2004 Food Allergen Labeling and Consumer Protection Act, no allergen declarations are required for this product as relating to corn, milk, egg, tree nuts, fish, crustacean shellfish, wheat, peanuts, gluten, and soybeans.

TECHNICAL DATA

BBB has a shelf Life of 2 years from date of manufacture when stored in its original, unopened container in a cool dry place.

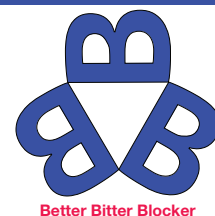
SAFETY DATA

BBB are patent pending non-active natural flavors, flavor enhancers and amino acid bitter blocking formulations derived from food grade materials and are Generally Recognized as Safe (GRAS).

HANDLING AND STORAGE

Product can be stored at ambient conditions for temperature 20-25°C, pressure, and humidity. Product should be kept in a tightly sealed container, under cool and dry conditions.

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