# Product Rationale: KIDZ DIGEST POWDER



Consider the following review of clinical research results on several ingredients known for their ability to support digestion and a healthy intestinal balance.

If poor digestion and gut health are ignored in infancy, toxicity and inflammation will continue to impact that child's resiliency to disease throughout their life. Colonization of a dysfunctional gut microbiome in early infancy during the critical window of immune system development is reported to increase the risk for the development of immune disease later in life. Transformation's supplemental enzymes work synergistically with endogenous enzymes and are vital for children suffering from allergies or digestive discomfort such as gas, cramping, bloating, reflux, constipation, or diarrhea.

# FORMULA RATIONALE

Transformation's Kidz Digest Powder was designed with infants in mind but is beneficial for all. This new and improved formula includes effective, GI tract stable digestive enzymes from microbial fungal sources that are safe for infants and children. This means the digestive enzymes do not require an enteric coating to survive the environment of the stomach but rather initiate digestion in the stomach and continue the digestive process in the small intestine. This is a key point because it allows maximum time for the supplemental enzymes to assist the endogenous enzymes to complete the breakdown of the carbohydrates and proteins that may be triggering immune reactions.

# Polysaccharolytic Enzymes

Kidz Digest Powder includes amylase and diastase to support digestion of complex carbohydrates along with invertase and lactase to support digestion of sugars and pectinase and cellulase which help break down fiber.

#### **Proteolytic Enzymes**

Incomplete digestion of proteins found in foods containing wheat and dairy are linked to food intolerances. Dipeptidyl Peptidase IV (DPP-IV) is a proteolytic enzyme that hydrolyses the strong proline and glutamine bonds in gluten, a wheat protein. Casein is another protein like gluten, found in human milk

(25-40%) and cow's milk (80%), and DPP-IV can also break down and inactivate the exorphin peptide casomorphin from dairy. DPP-IV is considered an exo-protease, meaning it cleaves mainly the terminal bonds on an amino acid chain. It is this "exo" property that assists our endogenous enzymes and makes DPP-IV especially effective in the breakdown of proteins that are more difficult to digest. For maximal protein breakdown DPP-IV is combined with other proteases with different and less stringent peptide bond specificity. Additionally, Transformation's protease blend includes acid, neutral, and alkaline endo and exo peptidases. This comprehensive proteolytic enzyme blend assists in the digestion of all dietary proteins. The proteases work in a broad pH range making them effective for digestion in the stomach and small intestine.

## Lipase

The proper digestion and assimilation of fats, essential fatty acids, and fat-soluble vitamins is crucial for the development of the brain, nervous system, and cellular membrane integrity. The unique blend of lipolytic enzymes in Kidz Digest Powder aids the body in the complete digestion of dietary fats.

#### **Probiotic**

A therapeutic dose of the probiotic *Bifidobacterium infantis* was selected to allow this product to serve as a digestive and probiotic combo. *B. infantis* is a leading probiotic to use in infants but is also beneficial for toddlers, teens, and adults. *B. infantis* provides substantial health benefits by hindering pathogen colonization through competitive exclusion. It is important for establishing and maintaining homeostasis of the intestinal ecosystem to allow for normal digestion and development.

#### **Prebiotic**

Prebiotics nourish the "good" bacteria in the gut, keeping the bacteria in the digestive system (the gut microbiome) in balance. Due to limitations on an infant's

digestive tract, a prebiotic fiber that is well tolerated and shown to positively support nutrient levels is used in Kidz Digest Powder. Sunfiber® is an innovative, clinically studied prebiotic for maintaining digestive health and microflora balance. As a fermented dietary fiber, Sunfiber® feeds and nourishes the gut's beneficial bacteria, promoting a healthy gut microbiome and in turn supporting digestive health and overall wellness.

## OTHER INGREDIENTS

Rice bran extract is a de-dusting agent intended to reduce clumping. This product contains no added sugar or artificial colors. No unnecessary ingredients are used in this product.

## **COMPONENT BENEFITS**

Transformation's Kidz Digest Powder is a gentle formula of effective, GI stable digestive enzymes that includes prebiotics and probiotics to promote optimal digestion of nutrients. Each 266 mg serving of Kidz Digest Powder is formulated to include the following.

Tzyme <sup>™</sup> Enzyme Blend	168 mg
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Amylase	6,105 SKB
Protease	48,800 HUT
Dipeptidyl Peptidase IV	300 DPP-IV
Lipase	3,200 FIP
Lactase	400 ALU
Pectinase	7 Endo-PG
Diastase	300 DP
Invertase	200 SU
Cellulase	800 CU

Bifidobacterium infantis (Bi-26®) 1 billion cfu

Sunfiber® AG 66 mg

# Other Ingredients:

## Nu-FLOW® Rice Bran Extract

Bi-26® is a registered trademark of DuPont™ Danisco®.

Sunfiber® AG is a registered trademark of Taiyo International.

Nu-FLOW® is a registered trademark of RIBUS, Inc.

## **SUMMARY**

Transformation's Kidz Digest Powder was created because we understand there are circumstances that prevent breastfeeding. Whether breast fed or formula fed, Kidz Digest Powder will support healthy digestion and alleviate the symptoms of occasional gas, cramping, bloating, and reduce spitting up.

## **CLINICAL APPLICATIONS**

- Gluten/casein intolerance
- Lactose intolerance
- Babies unable to consume mothers milk
- Food sensitivity/allergy
- Cramp/gas/bloat/colic
- Irregular bowel movements (constipation/diarrhea)
- Patients unable to swallow / fed via a feeding tube

#### RECOMMENDED USAGE

Mix 1/2 scoop (approximately 1/16 tsp or 266 mg) of Kidz Digest Powder in a small amount of tepid water just prior to feeding or as directed by a health care professional. May also be mixed with first bite of food or made into a paste with a few drops of water and swabbed into the inner cheek at feedings. If baby is "fussy," administer soon after feeding. Do not add to a bottle of formula, mix in food, or sprinkle on large amounts of food because it will break down the food in the container making it less palatable.

# SAFETY / QUALITY ASSURANCE

All Transformation Enzyme® formulas are carefully prepared to assure maximum quality and nutritional effectiveness.

## MICROBIOLOGICAL EVALUATION

This product was tested and found to be NSF/ANSI compliant and absent of any traces of *E.coli*, *salmonella*, and *S.aureus*.

## PRODUCT SPECIFICATIONS

Kidz Digest Powder is available in bottles of 47 grams (1.68 ounces). Does not contain any gluten, soy, artificial colors, flavors, or preservatives. Refrigerate for optimum activity. Keep out of reach of children.

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#### **PROBIOTICS**

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Transformation Enzyme Corporation 16203 Park Row Dr Ste 160 Houston, TX 77084 1-800-777-1474 TransformationEnzymes.com moreinfo@tecenzymes.com

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