



CAS#:18979-61-8

iWhite™ BR

4-Butylresorcinol

- Antioxidant
- Skin Brightening
- Hyperpigmentation Reduction

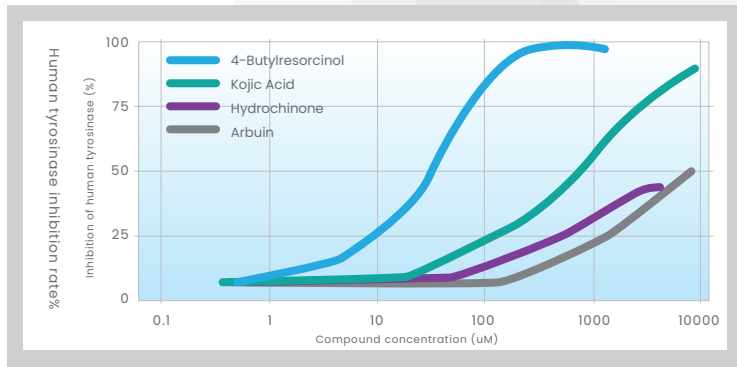
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iWhite™ BR is a widely used active ingredient in skin lightening formulations. It is a strong inhibitor of tyrosinase and peroxidase. It is a synthetic compound with skin-lightening properties, effective in targeting hyperpigmentation and promoting a more even skin tone. It exhibits good protective properties against H₂O₂ induced DNA damage is shown to have anti glycation effect.

Skin Whitening Foundation

- Pigments are produced by organisms as a natural defense against ultraviolet (UV) rays, with melanin being the most potent and efficient among them.
- When exposed to UV rays, melanin's chemical structure vibrates at high speeds, converting 99% of harmful UV radiation into harmless heat, thereby safeguarding the organism.
- This mechanism explains why individuals living in regions like Africa or high-altitude areas tend to have darker skin tones.

Tyrosinase inhibitory effect



▶ 4-butyl Resorcinol > Kojic acid > Arbutin > Hydroquinone

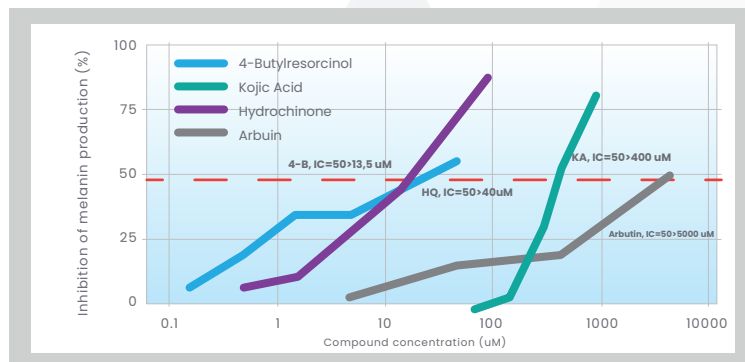
Tyrosinase inhibition effect (compared with other whitening products)

Test items	4-butyl Resorcinol	Hexyl Resorcinol	Phenylethyl Resorcinol	Kojic acid	Arbutin	hydroquinone
Human tyrosinase IC ₅₀ (umol/L)	21	94	131	500	6500	4400
Artificial skin model IC ₅₀ (umol/L)	13.5	-	-	>400	>500	<40

*The laboratory of artificial skin model used various inhibitors (4-butyl resorcinol, kojic acid, arbutin and hydroquinone) to culture for 13 days at different concentrations to determine the melanin content of the skin model. The data results were not the average value of five independent experiments.

▶ **Research proof:**
 The inhibitory effect of 4-butyl resorcinol on human tyrosinase was significantly better than that of hexyl resorcinol, phenylethyl resorcinol, kojic acid, arbutin and hydroquinone.
 The whitening effect of 4-butyl resorcinol is more than 6 times stronger than 377, 24 times stronger than kojic acid and 310 times stronger than arbutin.

Melanin Inhibitory Effect



▶ 4-butyl Resorcinol > Kojic acid > Hydroquinone > Arbutin

Efficacy Characteristics

EFFICACY SUMMARY

- Potent inhibitors of tyrosinase and peroxxygenase.
- Effective skin brightening and toning agent for normal skin.
- Highly effective for addressing pigmentation concerns.
- Helps combat chloasma caused by sun exposure.
- Provides strong protection against DNA damage induced by H₂O₂ (antioxidant properties).
- Exhibits anti-glycation effects.



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APPLICATION

- **Skin care Products:**
Brightening serums, creams, spot treatments
- **Sun Care Products:**
 - Make-Up Products
 - Hair Care Products

TECHNICAL DATA

Contents	iWhite BR
Appearance	White to off-white powder
Melting Point	49°C to 55°C
Loss on Drying:	Max. 1.0 %
Sulphated ash:	Min. 98.0 %

FORMULATION INSTRUCTIONS

Recommended Dosage	0.1% to 1% and up to 2% in washing-off products.
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