

Biological Activities of Culen (*Otholobium glandulosum*)

Plant Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Aerial parts - Chile	Toxic Effect	MEOH ext	IG mouse	12 g/kg	Inactive	No toxicity noted.	K25073
Aerial parts - Chile	Antipyretic Activity	MEOH ext	IG rabbit	600 mg/kg	Active	vs. <i>E. coli</i> endotoxin-induced fever	K25073
Aerial parts - Chile	Antipyretic Activity	Pet ether ext CH ₂ CL ext MEOH ext	IG rat	600 mg/kg	Active		L18718
Aerial parts - Chile	Antipyretic Activity	H ₂ O ext infusion	IG rabbit	800 mg/kg	Inactive	vs. <i>E. coli</i> endotoxin-induced fever	K25073
Aerial parts - Chile	Anti-inflammatory Activity	MEOH ext	IG guinea pig	1 g/kg	Active	vs. carrageenan-induced pedal edema	K25073
Aerial parts - Chile	Anti-inflammatory Activity	H ₂ O ext infusion	IG guinea pig	800 mg/kg	Active	vs. carrageenan-induced pedal edema	K25073
Aerial parts - Chile	Anti-inflammatory Activity	Pet ether ext CH ₂ CL ext MEOH ext	IG guinea pig	600 mg/kg	Active	vs. carrageenan-induced pedal edema	L18718
Leaf - Chile	Anticrustacean Activity	Pet ether ext	<i>Artemia salina</i>	10 mcg/ml	Weak Activity	Assay intended to predict antitumor activity.	J16191
Leaf+stem Chile	Antitumor Activity	ETOH-H ₂ O ext	IP mouse	Not stated	Active	Leuk-P388	A00678
Leaf+stem Chile	Cytotoxic Activity	ETOH-H ₂ O ext	Cell culture	ED ₅₀ : > 20 mcg/ml	Inactive	CA-9KB	A00678
Aerial parts - Bolivia	Antiviral Activity	H ₂ O ext	Cell culture	Not stated	Inactive	vs. HIV-infected lymphoblastoid cells	K29837
Leaf - Chile	Antibacterial Activity	Pet ether ext	Agar plate	MIC: > 1 mg/ml	Inactive	<i>Escherichia coli</i> <i>Pseudomonas aeruginosa</i>	J16191

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Plant Part - Origin	Activity Tested For	Type Extract	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Leaf - Chile	Antibacterial Activity	Pet ether ext	Agar plate	MIC: 12.5 mcg/ml MIC: 12.5 mcg/ml MIC: 25 mcg/ml MIC: 12.5 mcg/ml	Active	<i>Staphylococcus aureus</i> <i>Micrococcus flavus</i> <i>Bacillus pumilus</i> <i>Staphylococcus epidermis</i>	J16191
Not stated	Antiviral Activity	Not stated	Not stated	Not stated	Active	HIV	OG1006
Leaf - Chile	Antiyeast Activity	Pet ether ext	Agar plate	MIC: > 1 mg/ml	Inactive	<i>Saccharomyces cerevisiae</i>	J16191

Biological Activities of Compounds in Culen (*Otholobium glandulosum*)

Compound	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Bakuchiol	Toxicity Assessment	IG Mouse IP Mouse IV Mouse	LD50: 2.560 gm/kg LD50: 94.0 mg/kg LD50: 31.0 mg/kg	Active		M11358
Bakuchiol	Toxicity Assessment	IG Mouse	LD50: > 1 gm/kg	Inactive		M28117
Bakuchiol	Antiatherosclerotic Activity	IG Rabbit	Not stated	Active		M11596
Bakuchiol	Antihepatotoxic Activity	Cell culture	IC50: 1.0 mcg/ml	Active	vs. tacrine-induced heptocarcinoma.	L19059
Bakuchiol	Antihyperglycemic Activity	IG Mouse	200 mg/kg	Active		L08278
Bakuchiol	Antihyperlipemic Activity	IG Rat	10 mg/kg	Active		M11596
Bakuchiol	Estrogenic Activity	SC Rat	10 mg / kg 50 mg / kg	Inactive		T01382
Bakuchiol	Antipsoriasis Activity	SC Mouse External Mouse	Various	Active	Inhibited leukotriene B-4, leukotriene C-4, phospholipase A2, prostaglandin E2, lactate dehydrogenase and had a keratolytic and antioxidant effect	K27683

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Compound	Activity Tested For	Test Model	Dosage	Result	Notes/Organism tested	Ref #
Bakuchiol	Antipyretic Activity	IG Rat	20 mg/kg	Active		L18718
Bakuchiol	Anti-inflammatory Activity	External Mouse	250 mcg/ml	Active	vs. chemical induced ear inflammation	K27683
Bakuchiol	Anti-inflammatory Activity	SC Mouse	1 micromol	Active		K27683
Bakuchiol	Anti-inflammatory Activity	IG Guinea pig	4 mg/kg	Active	vs. chemical induced edema.	L18718
Bakuchiol	Antioxidant Activity	In vitro	16 micromols	Active		K22346
Bakuchiol	Antimutagenic Activity	Agar plate	150 mcg / plate 600 mcg / plate	Active	vs. chemical mutagens	M18307
Bakuchiol	Anticrustacean Activity	<i>Artemia salina</i>	LC50 < 1 ppm	Active	Assay system intended to predict for antitumor activity.	H18338
Bakuchiol	Anticrustacean Activity	<i>Artemia salina</i>	LC50 < 2 mcl/ml	Active	Assay system intended to predict for antitumor activity.	J16191
Bakuchiol	Cytotoxic Activity	Cell culture	4 mcg/ml	Active	HELA cells CCRF-CEM cells	M22789
Bakuchiol	Cytotoxic Activity	Cell culture	12.5 mcg/ml	Active	Leukemia L-929	M28117
Bakuchiol	Antimycobacterial Activity	Broth culture	IC50: 16 mcg/ml IC50: 21.4 mcg/ml IC50: > 500 mcg/ml	Active Active Inactive	<i>Mycobacterium aurum</i> <i>Mycobacterium bovis</i> <i>Mycobacterium smegmatis</i>	L18394
Bakuchiol	Antibacterial Activity	Broth culture	Not stated	Active		J07660
Bakuchiol	Antibacterial Activity	Broth culture	MIC: 1.0 mcg/ml	Active	<i>Staphylococcus aureus</i>	K03975
Bakuchiol	Antibacterial Activity	Agar plate	MIC: 5.0 mcg/ml MIC: 10 mcg/ml MIC: 10 mcg/ml MIC: 10 mcg/ml	Active Active Active Active Inactive Inactive	<i>Micrococcus flavus</i> <i>Staphylococcus aureus</i> <i>Bacillus pumilus</i> <i>Staphylococcus epidermidis</i> <i>Escherichia coli</i> <i>Pseudomonas aeruginosa</i>	J16191

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Bakuchiol	Antibacterial Activity	Broth culture	Not stated	Active Active	<i>Staphylococcus aureus</i> <i>Staphylococcus albus</i> <i>Bacillus thuringiensis</i>	K01794
Bakuchiol	Antibacterial Activity	Agar plate	MIC: 5.0 mcg/ml MIC: 10.0 mcg/ml MIC: 5.0 mcg/ml MIC: 5.0 mcg/ml MIC: 5.0 mcg/ml MIC: 5.0 mcg/ml	Active Active Active Active Active Active	<i>Streptococcus mutans</i> <i>Enterococcus faecalis</i> <i>Lactobacillus acidophilus</i> <i>Streptococcus sanguis</i> <i>Enterococcus</i> sp. <i>Salmonella typhimurium</i>	L18938
Bakuchiol	Antibacterial Activity	Agar plate	MIC: 1.0 mcg/ml MIC: 5.0 mcg/ml	Active Active	Several Gram + bacteria Several Gram - bacteria	M00451
Bakuchiol	Antibacterial Activity	Agar plate	MIC: 1.0 mcg/ml	Active	<i>Staphylococcus albus</i> <i>Staphylococcus aureus</i>	M11358
Bakuchiol	Antifungal Activity	Agar plate	20 mcg/ml	Active	<i>Porphyromonas gingivalis</i>	L18938
Bakuchiol	Antifungal Activity	Broth culture	Not stated	Active		J07680
Bakuchiol	Antifungal Activity	Agar plate	MIC: 2.0 mcg/ml	Active	Several fungal strains	M00451
Bakuchiol	Antifungal Activity	Agar plate	10 mcg/ml	Active	Several <i>Microsporum</i> species. <i>Trichophyton</i> species <i>Epidermophyton</i> species	M11358
Bakuchiol	Antifungal Activity	Agar plate	20 mcg/ml	Active	<i>Trichophyton mentagrophytes</i> <i>Microsporus lanosum</i>	M11994
Bakuchiol	Antiviral Activity	Cell culture	Not stated	Active	Influenza A2 Influenza B	J07680
Bakuchiol	Antiviral Activity	Human external	0.01% solution	Active	<i>Herpes simplex</i>	M12016

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