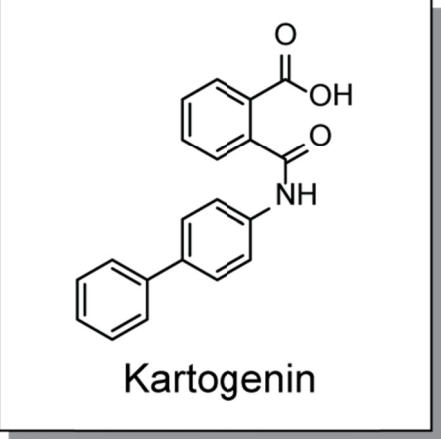




## Product Specification Sheet

<b>Product Name:</b>	Kartogenin (KGN)	
<b>Catalog Number:</b>	C5278-2 (powder) C5278-2s (10 mM in DMSO)	
<b>Package Size:</b>	2 mg	
<b>Technical information:</b>		
Chemical Formula:	C <sub>20</sub> H <sub>15</sub> NO <sub>3</sub>	
CAS #:		
Molecular Weight:	317.34	
Purity:	>99%	
Formulation:	Off-white solid	
Solubility:	Soluble in DMSO up to 50 mM	
Chemical Name:	2-([1,1'-biphenyl]-4-ylcarbamoyl)benzoic acid	
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.	
<b>Handling:</b>	<ul style="list-style-type: none"><li>• For C5278-2 (powder), add 630 µL of DMSO to make 10 mM solution.</li><li>• For C5278-2s, before open the vial, centrifuge the vial at 500rpm x 1 min in a 50 mL conical tube to ensure full recovery of sample.</li></ul>	
<b>Biological Activity:</b>	<p>Kartogenin was shown to promote robust chondrocyte differentiation from primary human mesenchymal stem cells/MSCs [EC50 = 100 nM]. Kartogenin-induced chondrocytes from hMSCs express typical set of chondrogenic genes, form chondrocyte nodules, and exhibit characteristic chondrocyte functions. In an in vitro model mimicking cytokine-induced damage during osteoarthritis (OA), 1-5 µM of Kartogenin treatment inhibited nitric oxide (NO) and glycosaminoglycans (GAG) release. Direct Intra-articular (IA) administration of Kartogenin promoted cartilage repair in collagenase and surgery induced OA models in mice, and alleviated OA-induced joint pain. Mechanism of action studies showed that Kartogenin interacts with filamin A (FLNA) and results in the release of transcription factor CBFβ to the nucleus to regulate chondrogenic gene expression.</p>	
<b>Reference:</b>	1. Johnson K. et. al. A Stem Cell–Based Approach to Cartilage Repair. Science (2012) April 5. [Epub ahead of print].	

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***For research only, not for clinical or diagnostic use.***