Product Data Sheet

Product Name:	type I hair keratin fragment [Homo sapiens]/[Ovis aries]/[Rattus norvegicus]
Cat. No.:	GP10050

Chemical Properties

Cas. No.			
SMILES	NC(CC(C)C)C(NC(CC(N)=O)C(NC(CC(O)=O)C(NC(CCCNC(N)=N)C(NC(CC(C)C)C(NC(C)C(NC(CO)C(NC(CC1=CC=C(O)C=C1)C(NC(CC(C		
Formula	$C_{47}H_{77}N_{13}O_{15}$	M.Wt	1064.19
Solubility	≥ 106.4mg/mL in DMSO	Storage	Store at -2(
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

The human type I hair keratin subfamily comprises nine individual members, which can be subdivided into three groups. Group A (hHa1, hHa3-I, hHa3-II, hHa4) and B (hHa7, hHa8) each contains structurally related hair keratins, whereas group C members hHa2, hHa5, and hHa6 represent structurally rather unrelated hair keratins[1].

Keratins are divided into type I (acidic) and type II (basic to neutral) members, which form the 10-nm intermediate filament cytoskeletal network of epithelial cells through obligatory association of equimolar amounts of type I and type II keratins[2,3,4].

The various type I hair keratin antibodies proved to be highly specific in that they recognized only single protein bands when analyzed in Western blots of one dimensionally resolved human hair keratins. One exception concerned the hHa2 antibody, which besides the prominent hHa2 protein band also reacted with a slightly larger minor band[1]. . A LEF-1 consensus sequence is invariably located at a highly conserved position in the proximal promoter region of the members of the human type I hair keratin family but it is specifically lacking in the entire promoter of the hHa7 gene[5].

References:
1. L. Langbein, M. A. Rogers et al. The Catalog of Human Hair Keratins. The journal of biological chemistry. 274: 19874-19884, 1999
2.Steinert, P. M., and Roop, D. R. (1988) Annu. Rev. Biochem. 57, 593-625.
3.Fuchs, E., and Weber, K. (1994) Annu. Rev. Biochem. 63, 345-382.
4.Mischke, D. (1998) in Intermediate Filaments: Subcellular Biochemistry (Herrmann, H., and Harris, J. R., eds) Vol. 31, pp. 71-95, Plenum Press, New York.
5.Rogers, M. A., Winter, H., Wolf, C., Jacobs, M., and Schweizer, J. (1998)J. Biol. Chem. 273, 26683-26691.

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