

Product Information

Fatty Acid Composition of Natural Lipids

Natural sphingolipids and glycerophospholipids contain a heterogeneous mixture of fatty acids attached to the sphingosine or glycerol moiety, respectively. The fatty acid composition is dependent on several factors, including the species, location within the organism, age, and environmental conditions. Common variations in the fatty acids include chain length, hydroxylation, and unsaturation. The percentages listed are only approximates as the actual amount will vary between lots.

Typical Fatty Acid Composition of Natural Lipids*	Asialo Ganglioside G _{M1} Item No. 15586	Ceramide (hydroxy) (bovine spinal cord) Item No. 24834	Ceramide (non-hydroxy) (bovine spinal cord) Item No. 24833	Ceramide Phosphoethanolamine (bovine) Item No. 24453	Ceramides Mixture (bovine) Item No. 22853	Digalactosyldiacylglyceride (hydrogenated) (plant) Item No. 27373	Esterified Steryl Glucosides Item No. 27204	Fucosylated Ganglioside G _{M1} (porcine) (ammonium salt) Item No. 24838	Galactosylceramide (bovine spinal cord) Item No. 24322
C14:0									
C16:0	1			8	trace	9	27	8	trace
C16:1									
C18:0	93		11	1	4	91	7	2	4
C18:1							7		
C18:2							42		
C18:3							4		
C20:0	3		2	1	1		1	13	1
C20:1									
C20:3									
C20:4									
C21:0				1					
C22:0	1		10	21	4		4	43	4
C22:1									
C22:4									
C22:6									
C23:0			6	40	2		2	3	2
C24:0	1		24	26	10		3	26	10
C24:1	1		31	1	15			5	15
C25:0			3		9				9
C25:1			3		1				1
C26:0			2		2				2
C26:1			3		1				1
C27:0					2				2
C27:1					2				2
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH		26			15				15
C20:0 2-OH		1			1				1
C22:0 2-OH		11			6				6
C23:0 2-OH		6			5				5
C24:0 2-OH		30			17				17
C24:1 2-OH		11							
C25:0 2-OH		3			3				3
C25:1 2-OH									
C26:0 2-OH									
C26:1 2-OH		2							
C16 <i>cis</i> -9,10 methylene									
C18 <i>cis</i> -9,10 methylene									
Others	1	10	5	1	0	0	3		0
Total	100	100	100	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source

Typical Fatty Acid Composition of Natural Lipids*	Galactosylceramide (non-hydroxy) (bovine) Item No. 24835	Galactosylceramides (hydroxy) (bovine) Item No. 24836	Ganglioside G _{D1a} (bovine brain) (sodium salt) Item No. 15585	Ganglioside G _{D1a} (bovine) (ammonium salt) Item No. 31591	Ganglioside G _{D1a} (porcine) (ammonium salt) Item No. 31707	Ganglioside G _{D1b} (bovine) (ammonium salt) Item No. 31708	Ganglioside G _{D1b} (bovine) (sodium salt) Item No. 34778	Ganglioside G _{D1b} (porcine brain) (ammonium salt) Item No. 31593	Ganglioside G _{D2} (ammonium salt) Item No. 25487
C14:0			1	1					
C16:0	trace		1	1	1	1	1	3	1
C16:1									
C18:0	5		89	89	88	92	92	84	87
C18:1									
C18:2									
C18:3									
C20:0	1		2	2	9	3	3	9	7
C20:1									
C20:3									
C20:4									
C21:0									
C22:0	9		1	1	1	1	1	1	1
C22:1	trace								
C22:4									
C22:6									
C23:0	5								1
C24:0	25				trace			1	
C24:1	43				trace	1	1	1	
C25:0	3								
C25:1	3								
C26:0	2								
C26:1	4								
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH		36							
C20:0 2-OH		1							
C22:0 2-OH		8							
C23:0 2-OH		6							
C24:0 2-OH		25							
C24:1 2-OH		9							
C25:0 2-OH		4							
C25:1 2-OH		2							
C26:0 2-OH		2							
C26:1 2-OH		2							
C16 <i>cis</i> -9,10 methylene									
C18 <i>cis</i> -9,10 methylene									
Others	0	5	6	6	1	2	2	1	3
Total	100	100	100	100	100	100	100	100	100

**Actual composition may vary according to dietary history and growth condition of the source*

Typical Fatty Acid Composition of Natural Lipids*	Ganglioside G _{D3} (bovine buttermilk) (ammonium salt) Item No. 31709	Ganglioside G _{M1} (bovine) (ammonium salt) Item No. 31548	Ganglioside G _{M1} (bovine) (sodium salt) Item No. 41206	Ganglioside G _{M1} (bovine) (ammonium salt) Item No. 31549	Ganglioside G _{M1} (porcine) (ammonium salt) Item No. 31551	Ganglioside G _{M2} (bovine brain) (sodium salt) Item No. 27192	Ganglioside G _{M2} (ammonium salt) Item No. 31710	Ganglioside G _{M3} (bovine buttermilk) (ammonium salt) Item No. 31711	Ganglioside G _{M4} (chicken egg) (ammonium salt) Item No. 24851
C14:0									
C16:0	8	2	2	1	trace	2	2	6	4
C16:1									
C18:0	1	90	90	90	86	82	82	3	2
C18:1								1	
C18:2									
C18:3									
C20:0	1	3	3	5	10	7	7	1	trace
C20:1									trace
C20:3									
C20:4									
C21:0	2								
C22:0	24	1	1	1	1	4	4	22	3
C22:1									4
C22:4									
C22:6									
C23:0	35					trace	trace	34	4
C24:0	21			1	1	1	1	20	6
C24:1	3	1	1	1	1	2	2	3	4
C25:0								1	
C25:1									
C26:0									
C26:1									
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH									1
C20:0 2-OH									3
C22:0 2-OH									25
C23:0 2-OH									17
C24:0 2-OH									18
C24:1 2-OH									7
C25:0 2-OH									
C25:1 2-OH									
C26:0 2-OH									
C26:1 2-OH									
C16 <i>cis</i> -9,10 methylene									
C18 <i>cis</i> -9,10 methylene									
Others	5	3	3	1	1	2	2	9	2
Total	100	100	100	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source

Typical Fatty Acid Composition of Natural Lipids*	Ganglioside G _{Q1b} (bovine) (ammonium salt) Item No. 31561	Ganglioside G _{Q1b} (bovine) (sodium salt) Item No. 15589	Ganglioside G _{Q1b} (porcine) (ammonium salt) Item No. 31562	Ganglioside G _{T1b} (bovine) (ammonium salt) Item No. 31712	Ganglioside G _{T1b} (bovine) (sodium salt) Item No. 15588	Ganglioside G _{T1b} (porcine) (ammonium salt) Item No. 31592	Globotetraosylceramide (porcine RBC) Item No. 24881	Globotriaosylceramide (hydroxy) (porcine RBC) Item No. 24872	Globotriaosylceramide (non-hydroxy) (porcine RBC) Item No. 24871
C14:0									
C16:0	2	2	2	1	1	trace	2	1	1
C16:1									
C18:0	90	90	81	91	91	85	2		1
C18:1									
C18:2									
C18:3									
C20:0	4	4	12	4	4	11	2		2
C20:1									
C20:3									
C20:4									
C21:0									
C22:0	1	1	2	1	1	1	20	1	22
C22:1									
C22:4									
C22:6									
C23:0				1	1		2		2
C24:0	1	1	1			trace	33	1	58
C24:1	1	1	1	1	1	trace	5		7
C25:0									1
C25:1									
C26:0							2		5
C26:1									
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH									
C20:0 2-OH								1	
C22:0 2-OH							4	10	
C23:0 2-OH								1	
C24:0 2-OH							19	52	
C24:1 2-OH							9	27	
C25:0 2-OH									
C25:1 2-OH									
C26:0 2-OH									
C26:1 2-OH									
C16 <i>cis</i> -9,10 methylene									
C18 <i>cis</i> -9,10 methylene									
Others	1	1	1	1	1	3	0	6	1
Total	100	100	100	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source

Typical Fatty Acid Composition of Natural Lipids*	Globaltriaosylceramide (porcine RBC) Item No. 24870	Glucosylceramide (plant) Item No. 25850	Glucosylceramide (bovine buttermilk) Item No. 23206	Glucosylceramide (Gaucher's spleen) Item No. 23207	Lactosylceramide (bovine buttermilk) Item No. 27197	Lactosylceramide (porcine RBC) Item No. 16983	Lysophosphatidylcholine Item No. 24331	Monogalactosyldiacyl-glyceride (hydrogenated) (plant) Item No. 17886	Phosphatidic Acids (ammonium salt) Item No. 24344
C14:0									
C16:0	2		7	26	12	6	72	23	39
C16:1									
C18:0	1		2	9	1	3	24	77	12
C18:1						1	3		34
C18:2									15
C18:3									
C20:0	1		1	5	1	2			
C20:1									
C20:3									
C20:4									
C21:0			1						
C22:0	18		27	26	25	14			
C22:1									
C22:4									
C22:6									
C23:0	2		36	5	36	2			
C24:0	36		23	22	21	23			
C24:1	4			6		6			
C25:0			1		1				
C25:1									
C26:0	2								
C26:1									
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH		77							
C18:0 2-OH						trace			
C20:0 2-OH									
C22:0 2-OH	3	8				4			
C23:0 2-OH	0	1							
C24:0 2-OH	19	9				18			
C24:1 2-OH	9					9			
C25:0 2-OH		1							
C25:1 2-OH									
C26:0 2-OH		1							
C26:1 2-OH									
C16 cis-9,10 methylene									
C18 cis-9,10 methylene									
Others	3	3	2	1	3	12	1	0	0
Total	100	100	100	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source

Typical Fatty Acid Composition of Natural Lipids*	Phosphatidylcholine (bovine) Item No. 24370	Phosphatidylcholine (chicken egg) Item No. 24343	Phosphatidylethanol-amine (bovine) Item No. 16878	Phosphatidylethanol-amine (chicken egg) Item No. 24332	Phosphatidylethanol-amine (soy) Item No. 25845	Phosphatidylinositol (plant, soy) (sodium salt) Item No. 24523	Phosphatidylinositol (plant, wheat germ) (sodium salt) Item No. 33671	Phosphatidylserine (bovine) Item No. 24341	Purified Ganglioside Mixture (bovine) (ammonium salt) Item No. 24856
C14:0	trace								
C16:0	35	31	3	17	22	32	42	1	2
C16:1	1								
C18:0	14	16	9	29	3	7		42	88
C18:1	33	31	17	17	7	7	6	27	1
C18:2		16		11	60	47	47		
C18:3					8	6	5		
C20:0								1	3
C20:1			2					4	
C20:3			1						
C20:4			9	12				4	
C21:0									
C22:0								1	1
C22:1								1	
C22:4			11						
C22:6			9					7	
C23:0									
C24:0									1
C24:1									2
C25:0									
C25:1									
C26:0									
C26:1									
C27:0									
C27:1									
C14:0 2-OH									
C16:0 2-OH									
C18:0 2-OH									
C20:0 2-OH									
C22:0 2-OH									
C23:0 2-OH									
C24:0 2-OH									
C24:1 2-OH									
C25:0 2-OH									
C25:1 2-OH									
C26:0 2-OH									
C26:1 2-OH									
C16 <i>cis</i> -9,10 methylene									
C18 <i>cis</i> -9,10 methylene									
Others	17	6	39	14	0	1	0	12	2
Total	100	100	100	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source

Typical Fatty Acid Composition of Natural Lipids*	Purified Mixed Gangliosides (porcine) (ammonium salt) Item No. 24857	Sphingomyelin (chicken egg) Item No. 24345	Sphingomyelin (porcine RBC) Item No. 31558	Sphingomyelin (bovine buttermilk) Item No. 31559	Sphingomyelin (bovine spinal cord) Item No. 22674	Sulfatide (bovine) (sodium salt) Item No. 24323
C14:0		trace		1		
C16:0	1	72	30	14	4	trace
C16:1						
C18:0	87	8	7	3	40	5
C18:1		3				trace
C18:2						
C18:3						
C20:0	4	2	4	1	3	1
C20:1						
C20:3						
C20:4						
C21:0						
C22:0	1		14	26	13	7
C22:1		5				trace
C22:4						
C22:6						
C23:0	1		2	30	2	
C24:0	1		30	21	9	18
C24:1	2	1	9	3	22	29
C25:0		2				2
C25:1		4				2
C26:0						1
C26:1						3
C27:0						1
C27:1						
C14:0 2-OH						
C16:0 2-OH						
C18:0 2-OH						5
C20:0 2-OH						trace
C22:0 2-OH						3
C23:0 2-OH						
C24:0 2-OH						10
C24:1 2-OH						6
C25:0 2-OH						2
C25:1 2-OH						
C26:0 2-OH						
C26:1 2-OH						
C16 <i>cis</i> -9,10 methylene						
C18 <i>cis</i> -9,10 methylene						
Others	3	3	11	1	7	5
Total	100	100	100	100	100	100

*Actual composition may vary according to dietary history and growth condition of the source



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