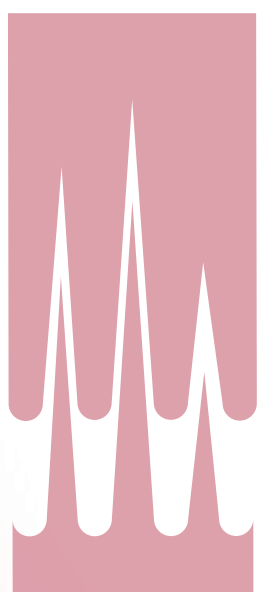


多環芳香族炭化水素(PAHs)分析用標準液
Polycyclic Aromatic Hydrocarbon Analytical Solutions



WELLINGTON
LABORATORIES

**STANDARDS FOR ENVIRONMENTAL
TESTING AND RESEARCH**

多環芳香族炭化水素 (PAHs) は、ベンゼン環を2つ以上有する芳香族炭化水素の総称です。
有機物の不完全燃焼や熱分解等で生成する化学物質で、発ガン性を有する事が知られており、その毒性から国際的にも規制が厳しくなっており、国内でも規制の動きが出ています。
今回WELLINGTON社では、PAHsの分析用標準液をご用意致しました。

WELLINGTON社では、環境問題の解決の一助として、分析用標準品を通して、皆様方のお役に立てればと思っています。
今後共、WELLINGTON社にご支援頂きます様、宜しくお願い致します。

PAH-CVS-B

Catalogue Number	Product (isooctane/toluene solution)	Qty/Conc
PAH-CVS-B	PAH-CVS-B Calibration Solutions CS1-CS5	1 Kit (5 ampoules)
PAH-B-CS1	CS1	1.0 ml
PAH-B-CS2	CS2	1.0 ml
PAH-B-CS3	CS3	1.0 ml
PAH-B-CS4	CS4	1.0 ml
PAH-B-CS5	CS5	1.0 ml

	PAH-B-CS1 (ng/ml)	PAH-B-CS2 (ng/ml)	PAH-B-CS3 (ng/ml)	PAH-B-CS4 (ng/ml)	PAH-B-CS5 (ng/ml)
Native PAHs					
*Naphthalene**	2.0	10	50	250	1000
2-Methylnaphthalene**	2.0	10	50	250	1000
*Acenaphthylene**	2.0	10	50	250	1000
*Acenaphthene**	2.0	10	50	250	1000
*Fluorene**	2.0	10	50	250	1000
*Phenanthrene**	2.0	10	50	250	1000
*Anthracene**	2.0	10	50	250	1000
*Fluoranthene**	2.0	10	50	250	1000
*Pyrene**	2.0	10	50	250	1000
Benzo[c]fluorene	2.0	10	50	250	1000
*Benz[a]anthracene**	2.0	10	50	250	1000
Cyclopenta[c,d]pyrene**	2.0	10	50	250	1000
*Chrysene**	2.0	10	50	250	1000
5-Methylchrysene**	2.0	10	50	250	1000
*Benzo[b]fluoranthene**	2.0	10	50	250	1000
*Benzo[k]fluoranthene**	2.0	10	50	250	1000
*Benzo[j]fluoranthene**	2.0	10	50	250	1000
*Benzo[e]pyrene**	2.0	10	50	250	1000
*Benzo[a]pyrene**	2.0	10	50	250	1000
Perylene	2.0	10	50	250	1000
*Indeno[1,2,3-c,d]pyrene**	2.0	10	50	250	1000
*Dibenz[a,h]anthracene**	2.0	10	50	250	1000
*Benzo[g,h,i]perylene**	2.0	10	50	250	1000
Dibenzo[a,l]pyrene**	2.0	10	50	250	1000
Dibenzo[a,e]pyrene**	2.0	10	50	250	1000
Dibenzo[a,i]pyrene**	2.0	10	50	250	1000
Dibenzo[a,h]pyrene**	2.0	10	50	250	1000
PAH-LCS-B (Extraction Standards)					
Naphthalene-d ₈	100	100	100	100	100
2-Methylnaphthalene-d ₁₀	100	100	100	100	100
Acenaphthylene-d ₈	100	100	100	100	100
Phenanthrene-d ₁₀	100	100	100	100	100
Anthracene-d ₁₀	100	100	100	100	100
Fluoranthene-d ₁₀	100	100	100	100	100
Benz[a]anthracene-d ₁₂	100	100	100	100	100
Chrysene-d ₁₂	100	100	100	100	100
Benzo[b]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[k]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[a]pyrene-d ₁₂	100	100	100	100	100
Perylene-d ₁₂	100	100	100	100	100
Indeno[1,2,3-c,d]pyrene-d ₁₂	100	100	100	100	100
Dibenz[a,h]anthracene-d ₁₄	100	100	100	100	100
Benzo[g,h,i]perylene-d ₁₂	100	100	100	100	100
Dibenzo[a,i]pyrene-d ₁₄	100	100	100	100	100
PAH-ISS-B (Recovery Standards)					
Acenaphthene-d ₁₀	100	100	100	100	100
Pyrene-d ₁₀	100	100	100	100	100
Benzo[e]pyrene-d ₁₂	100	100	100	100	100
PAH-SS-B (Sampling Standards)					
Fluorene-d ₁₀	100	100	100	100	100
p-Terphenyl-d ₁₄	100	100	100	100	100

★ GSマーク認証PAH評価(ZEK01.4-08)対象物質
GSマーク認証とは、ドイツの機器安全法で定められた法律に基づく、玩具・自転車・ヘルメット・家具・家庭用電気・機械製品などの安全認証のことを言います。2012年7月より、対象物質が16種より18種に変更されました。

★★ 環境省「排ガス中の多環芳香族炭化水素 (PAHs) の測定方法マニュアル」対象物質
2011年3月改定 (1-Methylnaphthaleneは不含)

PAH-CVS-A

Catalogue Number	Product (isooctane/toluene solution)				Qty/Conc
PAH-CVS-A	PAH-CVS-A Calibration Solutions CS1-CS5				1 Kit (5 ampoules)
PAH-A-CS1	CS1				1.0 ml
PAH-A-CS2	CS2				1.0 ml
PAH-A-CS3	CS3				1.0 ml
PAH-A-CS4	CS4				1.0 ml
PAH-A-CS5	CS5				1.0 ml
	PAH-A-CS1 (ng/ml)	PAH-A-CS2 (ng/ml)	PAH-A-CS3 (ng/ml)	PAH-A-CS4 (ng/ml)	PAH-A-CS5 (ng/ml)
Native PAHs					
Naphthalene	2.0	10	40	200	800
Acenaphthylene	2.0	10	40	200	800
Acenaphthene	2.0	10	40	200	800
Fluorene	2.0	10	40	200	800
Phenanthrene	2.0	10	40	200	800
Anthracene	2.0	10	40	200	800
Fluoranthene	2.0	10	40	200	800
Pyrene	2.0	10	40	200	800
Benz[a]anthracene	2.0	10	40	200	800
Cyclopenta[c,d]pyrene	2.0	10	40	200	800
Chrysene	2.0	10	40	200	800
5-Methylchrysene	2.0	10	40	200	800
Benzo[b]fluoranthene	2.0	10	40	200	800
Benzo[k]fluoranthene	2.0	10	40	200	800
Benzo[j]fluoranthene	2.0	10	40	200	800
Benzo[a]pyrene	2.0	10	40	200	800
Indeno[1,2,3-c,d]pyrene	2.0	10	40	200	800
Dibenz[a,h]anthracene	2.0	10	40	200	800
Benzo[g,h,i]perylene	2.0	10	40	200	800
Dibenzo[a,l]pyrene	2.0	10	40	200	800
Dibenzo[a,e]pyrene	2.0	10	40	200	800
Dibenzo[a,i]pyrene	2.0	10	40	200	800
Dibenzo[a,h]pyrene	2.0	10	40	200	800
Deuterated PAHs					
Naphthalene-d ₈	100	100	100	100	100
Acenaphthene-d ₁₀	100	100	100	100	100
Fluorene-d ₁₀	100	100	100	100	100
Phenanthrene-d ₁₀	100	100	100	100	100
Anthracene-d ₁₀	100	100	100	100	100
Fluoranthene-d ₁₀	100	100	100	100	100
Pyrene-d ₁₀	100	100	100	100	100
Benz[a]anthracene-d ₁₂	100	100	100	100	100
Chrysene-d ₁₂	100	100	100	100	100
Benzo[b]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[k]fluoranthene-d ₁₂	100	100	100	100	100
Benzo[a]pyrene-d ₁₂	100	100	100	100	100
Indeno[1,2,3-c,d]pyrene-d ₁₂	100	100	100	100	100
Dibenz[a,h]anthracene-d ₁₄	100	100	100	100	100
Benzo[g,h,i]perylene-d ₁₂	100	100	100	100	100
Dibenzo[a,i]pyrene-d ₁₄	100	100	100	100	100
Deuterated PAH Internal Standards					
Acenaphthylene-d ₈	100	100	100	100	100
p-Terphenyl-d ₁₄	100	100	100	100	100
Benzo[e]pyrene-d ₁₂	100	100	100	100	100

SUPPORT SOLUTION FOR PAH-CVS-A

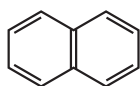
Catalogue Number	Product (isooctane/toluene solution)		Qty/Conc
PAH-LCS-A	PAH Labelled Compound Solution		1.2 ml
PAH-ISS-A	PAH Internal Standard Spiking Solution		1.2 ml
PAH-STK-A	PAH Native Stock Solution		1.2 ml

	PAH-LCS-A (ng/ml)	PAH-ISS-A (ng/ml)	PAH-STK-A (ng/ml)
Native PAHs			
Naphthalene	—	—	4000
Acenaphthylene	—	—	4000
Acenaphthene	—	—	4000
Fluorene	—	—	4000
Phenanthrene	—	—	4000
Anthracene	—	—	4000
Fluoranthene	—	—	4000
Pyrene	—	—	4000
Benz[a]anthracene	—	—	4000
Cyclopenta[c,d]pyrene	—	—	4000
Chrysene	—	—	4000
5-Methylchrysene	—	—	4000
Benzo[b]fluoranthene	—	—	4000
Benzo[k]fluoranthene	—	—	4000
Benzo[j]fluoranthene	—	—	4000
Benzo[a]pyrene	—	—	4000
Indeno[1,2,3-c,d]pyrene	—	—	4000
Dibenz[a,h]anthracene	—	—	4000
Benzo[g,h,i]perylene	—	—	4000
Dibenzo[a,l]pyrene	—	—	4000
Dibenzo[a,e]pyrene	—	—	4000
Dibenzo[a,i]pyrene	—	—	4000
Dibenzo[a,h]pyrene	—	—	4000
Deuterated PAHs			
Naphthalene-d ₈	2000	—	—
Acenaphthene-d ₁₀	2000	—	—
Fluorene-d ₁₀	2000	—	—
Phenanthrene-d ₁₀	2000	—	—
Anthracene-d ₁₀	2000	—	—
Fluoranthene-d ₁₀	2000	—	—
Pyrene-d ₁₀	2000	—	—
Benz[a]anthracene-d ₁₂	2000	—	—
Chrysene-d ₁₂	2000	—	—
Benzo[b]fluoranthene-d ₁₂	2000	—	—
Benzo[k]fluoranthene-d ₁₂	2000	—	—
Benzo[a]pyrene-d ₁₂	2000	—	—
Indeno[1,2,3-c,d]pyrene-d ₁₂	2000	—	—
Dibenz[a,h]anthracene-d ₁₄	2000	—	—
Benzo[g,h,i]perylene-d ₁₂	2000	—	—
Dibenzo[a,i]pyrene-d ₁₄	2000	—	—
Deuterated PAH Internal Standards			
Acenaphthylene-d ₈	—	2000	—
p-Terphenyl-d ₁₄	—	2000	—
Benzo[e]pyrene-d ₁₂	—	2000	—

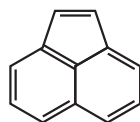
SUPPORT SOLUTION FOR PAH-CVS-B

Catalogue Number	Product (isooctane/toluene solution)		Qty/Conc	
PAH-LCS-B	PAH Labelled Compound Solution		1.2ml	
PAH-ISS-B	PAH Internal Standard Spiking Solution		1.2ml	
PAH-SS-B	PAH Sampling Standard Solution		1.2ml	
PAH-STK-B	PAH Native Stock Solution		1.2ml	

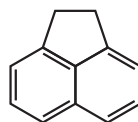
	PAH-LCS-B (ng/ml)	PAH-ISS-B (ng/ml)	PAH-SS-B (ng/ml)	PAH-STK-B (ng/ml)
Native PAHs				
*Naphthalene**	—	—	—	2500
2-Methylnaphthalene**	—	—	—	2500
*Acenaphthylene**	—	—	—	2500
*Acenaphthene**	—	—	—	2500
*Fluorene**	—	—	—	2500
*Phenanthrene**	—	—	—	2500
*Anthracene**	—	—	—	2500
*Fluoranthene**	—	—	—	2500
*Pyrene**	—	—	—	2500
Benzo[c]fluorene	—	—	—	2500
*Benz[a]anthracene**	—	—	—	2500
Cyclopenta[c,d]pyrene**	—	—	—	2500
*Chrysene**	—	—	—	2500
5-Methylchrysene**	—	—	—	2500
*Benzo[b]fluoranthene**	—	—	—	2500
*Benzo[k]fluoranthene**	—	—	—	2500
*Benzo[j]fluoranthene**	—	—	—	2500
*Benzo[e]pyrene**	—	—	—	2500
*Benzo[a]pyrene**	—	—	—	2500
Perylene	—	—	—	2500
*Indeno[1,2,3-c,d]pyrene**	—	—	—	2500
*Dibenz[a,h]anthracene**	—	—	—	2500
*Benzo[g,h,i]perylene**	—	—	—	2500
Dibenzo[a,l]pyrene**	—	—	—	2500
Dibenzo[a,e]pyrene**	—	—	—	2500
Dibenzo[a,i]pyrene**	—	—	—	2500
Dibenzo[a,h]pyrene**	—	—	—	2500
Deuterated PAHs				
Naphthalene-d ₈	5000	—	—	—
2-Methylnaphthalene-d ₁₀	5000	—	—	—
Acenaphthylene-d ₈	5000	—	—	—
Phenanthrene-d ₁₀	5000	—	—	—
Anthracene-d ₁₀	5000	—	—	—
Fluoranthene-d ₁₀	5000	—	—	—
Benz[a]anthracene-d ₁₂	5000	—	—	—
Chrysene-d ₁₂	5000	—	—	—
Benzo[b]fluoranthene-d ₁₂	5000	—	—	—
Benzo[k]fluoranthene-d ₁₂	5000	—	—	—
Benzo[a]pyrene-d ₁₂	5000	—	—	—
Perylene-d ₁₂	5000	—	—	—
Indeno[1,2,3-c,d]pyrene-d ₁₂	5000	—	—	—
Dibenz[a,h]anthracene-d ₁₄	5000	—	—	—
Benzo[g,h,i]perylene-d ₁₂	5000	—	—	—
Dibenzo[a,i]pyrene-d ₁₄	5000	—	—	—
Deuterated PAH Internal Standards				
Acenaphthene-d ₁₀	—	5000	—	—
Pyrene-d ₁₀	—	5000	—	—
Benzo[e]pyrene-d ₁₂	—	5000	—	—
Deuterated PAH Sampling Standards				
Fluorene-d ₁₀	—	—	5000	—
p-Terphenyl-d ₁₄	—	—	5000	—



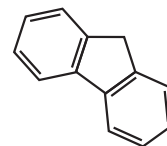
Naphthalene



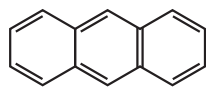
Acenaphthylene



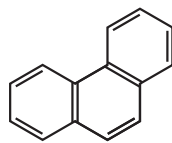
Acenaphthene



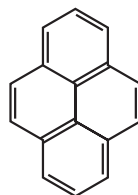
Fluorene



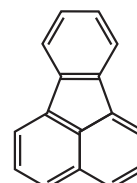
Anthracene



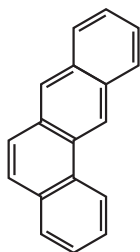
Phenanthrene



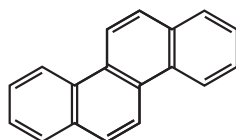
Pyrene



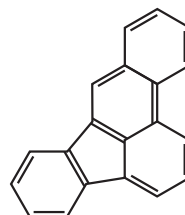
Fluoranthene



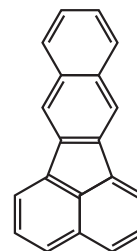
Benzo[a]anthracene



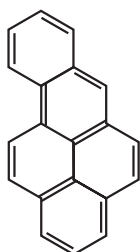
Chrysene



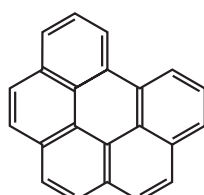
Benzo[b]fluoranthene



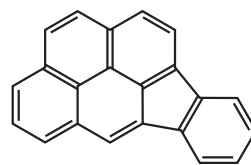
Benzo[k]fluoranthene



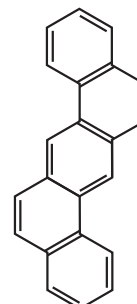
Benzo[a]pyrene



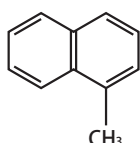
Benzo[g,h,i]perylene



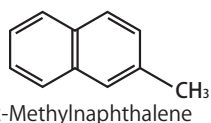
Indeno[1,2,3-c,d]pyrene



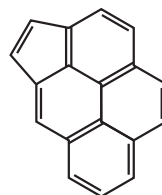
Dibenz[a,h]anthracene



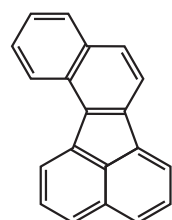
1-Methylnaphthalene



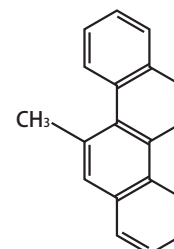
2-Methylnaphthalene



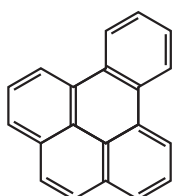
Cyclopenta[c,d]pyrene



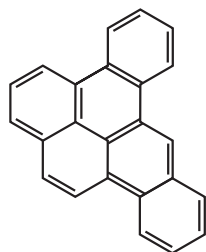
Benzo[j]fluoranthene



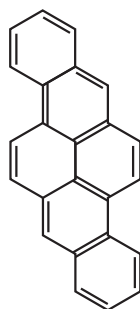
5-Methylchrysene



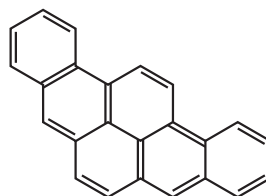
Benzo[e]pyrene



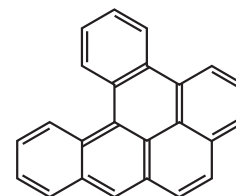
Dibenzo[a,e]pyrene



Dibenzo[a,h]pyrene



Dibenzo[a,i]pyrene



Dibenzo[a,l]pyrene

製品のお問い合わせは、下記までお願い致します。



WELLINGTON
LABORATORIES

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