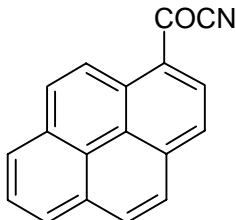
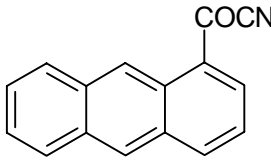
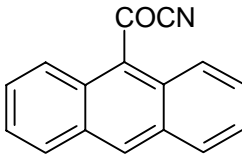




Sensitive Fluorescence Labeling Reagents for HPLC of Alcoholic Hydroxy group

<For Research Use Only>
Keep at room temperature

Wako Catalog No.	165-13691	017-12101	018-11771
Description	Pyrene-1-carbonyl Cyanide	1-Anthroyl Cyanide	9-Anthroyl Cyanide
Synonym		1-Anthroylnitrile	9-Anthroylnitrile
Package Size	100 mg	100 mg	100 mg
Appearance	Reddish yellow ~ orange, crystalline powder ~ powder	Orange, crystals ~ crystalline powder	Yellowish red, crystals
Melting Point	M.P.: 195 ~ 202	M.P.: 163 ~ 166	M.P.: 141 ~ 144
Excitation wavelength	ex = 350 nm	ex = 370 nm	ex = 360 nm
emission wavelength	em = 410 nm	em = 470 nm	em = 460 nm
Assay	97.0+ % (HPLC)	98.0+ % (HPLC)	98.0+ % (HPLC)
Chemical Structure			
Molecular Weight	$C_{18}H_{10}NO = 255.28$	$C_{16}H_9NO = 231.25$	$C_{16}H_9NO = 231.25$

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[Comparison of reactivity]

(Degree of esterification)

Steroid	Reagent		1-Anthroyl Cyanide*	9-Anthroyl Cyanide
Cortisol	21	(prim)	100	100
Androsterone	3	(a)	12	0
Lithocholate	3	(e)	53	2
Isoandrosterone	3	(e)	20	3
11 -hydroxyandrost-4-ene-3,17-dione	11	(e)	0	0
11 -hydroxyandrost-4-ene-3,17-dione	11	(e)	0	0
17 -hydroxy-5 -androst-3-one	17	(qa)	7	0
Dihydrotestosterone	17	(qe)	7	0
Estrone	3	(phen)	72	50

prim = primary; a = axial; e = equatorial; qa = quasi-axial; qe = quasi-equatorial; phen = phenolic

* : The reactivity of Pyrene-1-carbonyl Cyanide is almost the same as that of 1-Anthroyl Cyanide.

[Application]

- Sensitive derivatization of hydroxysteroids ^{1,4)} <1-Anthroyl Cyanide and 9- Anthroyl Cyanide>
- Determination of 6 -Hydroxycortisol in urine ²⁾ <9- Anthroyl Cyanide>
- Determination of serum bile acids ³⁾ <1-Anthroyl Cyanide>
- Micro analysis of prostaglandins and ecdysteroids in insects ⁷⁾ <1-Anthroyl Cyanide>

[Note]

- Any of the labeling reagents are easy to unravel by light and water, so that they should be stored in a desiccator in the dark.
- Dissolve them in highly purified dehydrated solvent and use the solutions within a day.

[References]

- 1) Goto, J., Nambara, T., *et al.*, *Anal. Chim. Acta.*, **147**, 397-400 (1983).
- 2) Goto, J., Nambara, T., *et al.*, *J. Liquid Chromatogr.*, **6**, 1977-1985 (1983).
- 3) Goto, J., Nambara, T., *et al.*, *J. Chromatogr.*, **276**, 289-300 (1983).
- 4) Goto, J., Nambara, T., *et al.*, *Anal. Sci.*, **2**, 585-586 (1986).
- 5) Kudo, M., Tsuji, K. *et al.*, *J. Chromatogr.*, **287**, 337 (1984).
- 6) Goto, J., Nambara, T., *et al.*, *Anal. Sci.*, **2**, 175 (1986).
- 7) Kubo, I. And Komatsu, S.: *J. Chromatogr.*, **362**, 61-70 (1986).

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