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Short Communication

HYDROLYSIS OF URIDINE DIPHOSPHATE-N-ACETYL-D-GLUCOSAMINE BY NORMAL AND MALIGNANT CELLS OF THE RAT

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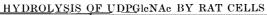
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Received 27 May 1980 Accer	oted 8 September 1980
THE OBJECTIVE of this study was to com	a virus (RSHT) were obtained from
	v Laboratories. Rat tumour cells
determine whether the 2-steb hydrolvsis Flov	v Laboratories. Rat tumour cells
of uridine diphosphate-N-acetvl-D-gluco- were	cultured from fibrosarcomas induced
	V-hydroxy-2-fluorenylbenzamide (RT- d RT-5) or from sarcomas induced by
	Received 27 Mav 1980 Accer THE OBJECTIVE of this study was to communication determine whether the 2-step hydrolysis of uridine diphosphate-N-acetyl-D-gluco- were samine (UDPG1cNAc) may serve as by N

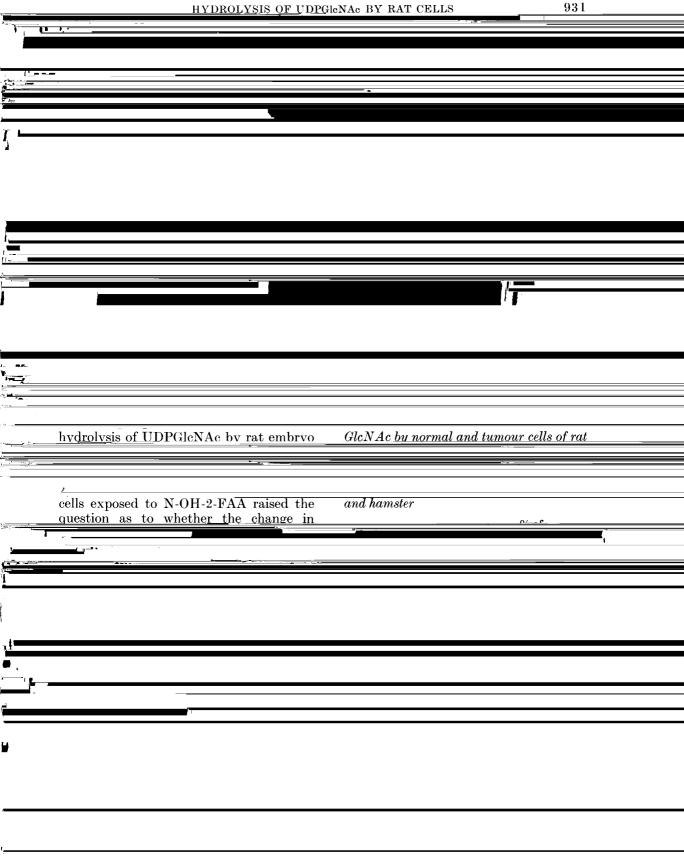
the rat cell. UDPG1cNAc is cleaved by s.c. inoculation of cells that had been

nucleotide pyrophosphatase to UMP and transformed by N-OH-2-FAA (D'/I/3T

	Cell line†	Passaze no. of cells	once or twice	to N-OH-2-F % of UDP[6 conv 	- ³ H]GlcNAc	
	λο - ₂	Passage no. of	%_of UDP[6-3H]- GlcNAc	% of UDP[6 conv	- ³ H]GlcNAc orted to [6- ³ H] hexose- <u>NAc</u>	
	λο - ₂	Passage no. of	%_of UDP[6-3H]- GlcNAc	% of UDP[6 conv	- ³ H]GlcNAc orted to [6- ³ H] hexose- <u>NAc</u>	
	λο - ₂	Passage no. of	%_of UDP[6-3H]- GlcNAc	% of UDP[6 conv	- ³ H]GlcNAc orted to [6- ³ H] hexose- <u>NAc</u>	
	Cell line†	no. of	UDP[6-3H]- GlcNAc	to [6.3H]	to [6- ³ H] hexose- NAc	
	Cell linet	no. of	UDP[6-3H]- GlcNAc	to [6-3H] hexose-	to [6- ³ H] hexose- NAc	
	Cell line+	no. of	GlcNAc	hexose-	hexose- NAc	
	<u>Cell line</u>	no. of	GlcNAc	hexose-	hexose- NAc	
	<u>Çell line</u> †				<u>NAc</u>	
	<u>Cell line</u>				<u>NAc</u>	
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	λ ^ο του 					
			-			
		12 16	$\begin{array}{c}2\pm1\\4\pm1\end{array}$	$78\pm5\\75\pm5$	$\begin{array}{c} 20\pm5\\ 21\pm4 \end{array}$	
		20 24	2 ± 1 3 ± 1	79 ± 5 72 ± 7	19 ± 4 24 \pm 7	
		28	$\begin{array}{c}2 \\ \pm 1 \\ (3 \\ \pm 1)\end{array}$	76 ± 2 (75 ± 3)	22 ± 2 (22 ± 3)	
	Exposed lines I and II	$\frac{8}{12}$	3	55	42	
			2+1	70+10	28 + 11	P3
					14	
	A *	20	$\frac{14+2}{6}$	$\frac{68+9}{59}$	$\frac{18+6}{35}$	
		$\overline{28}$	15 ± 10 (8 ± 6)‡	71 ± 11 (65 ± 7)‡	14 ± 1 (27 ± 10)	
	Control lines III and IV	16	3 ± 1 3 ± 1 3 ± 1	79 ± 1 72 ± 6	18 + 2	
	A	20	$\frac{3\pm 1}{3\pm 1}$	$\frac{72+6}{74\pm 2}$	$\frac{25 \pm 5}{23 \pm 1}$	
•		28	$\frac{3+1}{$	<u>77,+1</u>	20+2	
	Exposed lines	16	(3 ± 1)	(76 ± 3)	(22 ± 3)	
	тт анд Т А	<u>16</u> 20	<u> </u>	<u> </u>	22	
		24 28	$\begin{array}{c} 38 \pm 11 \\ 17 \pm 4 \end{array}$	$\begin{array}{c} 47\pm 6\\ 69\pm 9\end{array}$	$\begin{array}{c}15\pm5\\14\pm6\end{array}$	
* The veloce :	n oolumra 9.4		(20 ± 13) ‡	(61 ± 11) ‡	(19 ± 5)	41.4
The values 1		and pare th	e means + averac	e deviations of t	wa.cell lines excent	

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	et al., 1978).		peculiar to the transformed cells of the
	та — и		
	The lack of correlation	<u>between malig</u>	hamster. However. impairment of this
	nant transformation of <u>cell and the decrease of</u>	the rat embryo the cleavage of	reaction is not indicative of malignant transformation of the rat cell_irrespective
	- t		