

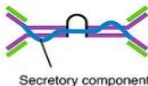




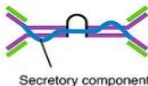




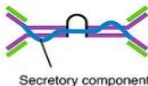




# Govt. Degree College, Rajampeta

## Department of ZOOLOGY

Academic year: 2024-25

1. Name of the Activity	GROUP DISCUSSION																																																																		
2. Name of the Lecturer	Dr. N. Chandra Mohan																																																																		
3. Date	19-02-2025																																																																		
4. Number of students participated	11																																																																		
5. Number of faculty involved	1																																																																		
6. Aim & Objectives:																																																																			
<ul style="list-style-type: none"><li>• To Gain Knowledge on the Classification of Immunoglobulins.</li><li>• To change the classroom environment.</li><li>• To enhance the thinking power of students.</li><li>• To improve the discussion skills of students.</li></ul>																																																																			
7. Brief Report:																																																																			
<p>➤ I (Dr. N. Chandra Mohan) conducted a Group Discussion Programme to IV Sem Students on 19-02-2025.</p> <p>➤ From this programme the students were divided into 3 groups. All the students discussed the topic “Classification of Immunoglobulins.”</p> <p>● immunoglobulins (Ig) are Glycoproteins that help the body from infections. They are also known as antibodies.</p>																																																																			
<table><tr><th colspan="6">The Five Immunoglobulin (Ig) Classes</th></tr><tr><th></th><th>IgM pentamer</th><th>IgG monomer</th><th>Secretory IgA dimer</th><th>IgE monomer</th><th>IgD monomer</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Heavy chains</td><td><math>\mu</math></td><td><math>\gamma</math></td><td><math>\alpha</math></td><td><math>\epsilon</math></td><td><math>\delta</math></td></tr><tr><td>Number of antigen binding sites</td><td>10</td><td>2</td><td>4</td><td>2</td><td>2</td></tr><tr><td>Molecular weight (Daltons)</td><td>900,000</td><td>150,000</td><td>385,000</td><td>200,000</td><td>180,000</td></tr><tr><td>Percentage of total antibody in serum</td><td>6%</td><td>80%</td><td>13%</td><td>0.002%</td><td>1%</td></tr><tr><td>Crosses placenta</td><td>no</td><td>yes</td><td>no</td><td>no</td><td>no</td></tr><tr><td>Fixes complement</td><td>yes</td><td>yes</td><td>no</td><td>no</td><td>no</td></tr><tr><td>Fc binds to</td><td></td><td>phagocytes</td><td></td><td>mast cells and basophils</td><td></td></tr><tr><td>Function</td><td>Main antibody of primary responses, best at fixing complement; the monomer form of IgM serves as the B cell receptor</td><td>Main blood antibody of secondary responses, neutralizes toxins, opsonization</td><td>Secreted into mucus, tears, saliva, colostrum</td><td>Antibody of allergy and antiparasitic activity</td><td>B cell receptor</td></tr></table>		The Five Immunoglobulin (Ig) Classes							IgM pentamer	IgG monomer	Secretory IgA dimer	IgE monomer	IgD monomer							Heavy chains	$\mu$	$\gamma$	$\alpha$	$\epsilon$	$\delta$	Number of antigen binding sites	10	2	4	2	2	Molecular weight (Daltons)	900,000	150,000	385,000	200,000	180,000	Percentage of total antibody in serum	6%	80%	13%	0.002%	1%	Crosses placenta	no	yes	no	no	no	Fixes complement	yes	yes	no	no	no	Fc binds to		phagocytes		mast cells and basophils		Function	Main antibody of primary responses, best at fixing complement; the monomer form of IgM serves as the B cell receptor	Main blood antibody of secondary responses, neutralizes toxins, opsonization	Secreted into mucus, tears, saliva, colostrum	Antibody of allergy and antiparasitic activity	B cell receptor
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### Students discussed the topic - Classification of Immunoglobulins

#### Discussed points

1. Definition of Immunoglobulin
2. Classes of Immunoglobulins.
3. Structure, special features and functions of Immunoglobulins.

Name of the Activity : Group Discussion - Types of Immunoglobulins (Classification)

Date : 19/02/2025

Class : IX Sem - Major Zoology

Number of students participated : 11

Organized by : Dr. N. Chandra Mohan, Lecturer in Zoology

S.No	Name of the student/Person	Class/Designation	Signature
1.	M. Dalini	IX Sem (Zoology)	M. Dalini
2.	D. Sanyal	IX Sem (Zoology)	D. Sanyal
3.	M. Anitha	IX Sem (Zoology)	M. Anitha
4.	S. Sanyal	IX Sem (Zoology)	S. Sanyal
5.	R. Ilaiyachandana	IX Sem (Zoology)	R. Ilaiyachandana
6.	P. Koushika	IX Sem (Zoology)	P. Koushika
7.	J. Sanyal	IX Sem (Zoology)	J. Sanyal
8.	A. Sanyal	IX Sem (Zoology)	A. Sanyal
9.	S. Anitha	IX Sem (Zoology)	S. Anitha
10.	P. Sanyal	IX Sem (Zoology)	P. Sanyal
11.	B. Sanyal	IX Sem (Zoology)	B. Sanyal

*(Signature)*

*(Signature)*

Signature of the lecturer: Dr. N. Chandra Mohan

